STR-S1

SERVICE MANUAL

AEP Model
UK Model

This set is the receiver section in SHC-S3.

SPECIFICATIONS

Amplifier section

Continuous RMS power output
- 40 + 40 watts (4 ohms at 1 kHz, DIN)
- 50 + 50 watts (4 ohms at 1 kHz, 10 % THD)
- 30 + 30 watts (8 ohms at 1 kHz, DIN)
- 37 + 37 watts (8 ohms at 1 kHz, 10 % THD)

Music power output
- 100 + 100 watts (4 ohms at 1 kHz, 10 % THD)
- 60 + 60 watts (8 ohms at 1 kHz, 10 % THD)

Total harmonic distortion
- 0.025% at rated 15 W 1 kHz output (SOURCE DIRECT ON)

Residual noise
- Less than 150 µV, 6 ohms, Network A

Frequency response
- PHONO MM (20 Hz - 20 kHz): RIAA equalization curve ±0.5 dB
- TUNER, CD, TAPE, MD: 10 Hz - 50 kHz +0.5 -3 dB

Input sensitivity
- PHONO: MM, 2.5 mV, 50 kilohms
- TUNER, CD, TAPE, MD: 150 mV, 50 kilohms

Maximum input capability (1 kHz)
- PHONO: MM, 150 mV at 1 kHz (SOURCE DIRECT ON)

S/N (network)
- PHONO: 85 dB(A) (SOURCE DIRECT ON, 10 mV)
- CD: 100 dB(A) (SOURCE DIRECT ON, 150 mV)

Output voltage impedance
- TAPE, MD: 150 mV, 2 kilohms
- PHONES: 25 milliwatts at 8 ohms, Accepts low and high impedance headphones.

Tone controls
- BASS: ±7 dB at 100 Hz
- TREBLE: ±6 dB at 10 kHz

FM tuner section

Frequency range
- 87.5 - 108 MHz

Aerial terminals
- 75 Ω unbalanced

Intermediate frequency
- 10.7 MHz

Sensitivity
- (mono 26 dB quieting)
- 12.1 dBf, 1.1 µV
- (stereo 46 dB quieting)
- 40.0 dBf, 27 µV

Usable sensitivity (IHF)
- 19.5 dBf, 2.6 µV

Signal-to-noise ratio (at 40 kHz deviation)
- 74 dB (mono)
- 69 dB (stereo)

— Continued on page 2 —

FM STEREO/FM-AM RECEIVER

SONY®

MICROFILM

Harmonic distortion
0.3% (mono); 0.5% (stereo) (at 1 kHz)
Frequency response
30 Hz - 15 kHz (+0.5 dB, -1.0 dB)
Separation
40 dB (at 1 kHz)
Selectivity
80 dB (at 400 kHz)
60 dB (at 300 kHz)

AM tuner section

Frequency range
MW: 531 to 1,602 kHz
LW: 153 to 279 kHz
Intermediate frequency
450 kHz
Usable sensitivity (with AM loop aerial)
MW: 300µV/m (999 kHz)
LW: 1 mV/m (216 kHz)
Signal-to-noise ratio
52 dB (50 mV/m, 999 kHz)
50 dB (50 mV/m, 216 kHz)
Harmonic distortion
0.5% (50 mV/m, 400 Hz)
Selectivity
32 dB

General

Power requirements
220 - 230 V AC, 50/60 Hz
Power consumption
95 W
Mains
1 switched, 175 W max.
Dimensions
Approx. 310 × 90 × 360 mm (12 1/4 × 3 5/8 × 14 1/4 inches) (w/h/d)
Mass
Approx. 5 kg (11 lb)
Supplied accessories
Remote commander RM-S1 (1)
Sony SUM-3 (NS) (2)
Audio bus cable (1)
FM wire aerial (1)
AM loop aerial (1)
Screws M3×6 (4)

Design and specifications are subject to change without notice.

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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

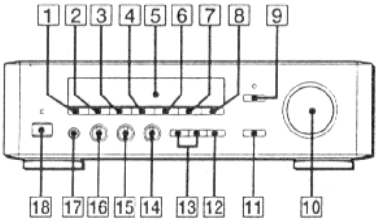
SECTION 1
GENERAL

This section is extracted from instruction manual.

Index to Parts and Controls

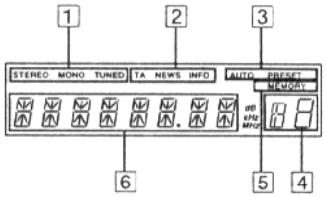
Front Panel

Refer to the pages indicated in parenthesis for details.



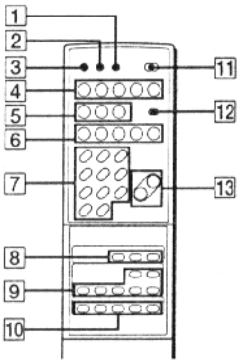
1 EON button (11)(12)
2 PTY button (12)
3 DISPLAY button (9)(11)
4 CHARACTER button (9)
5 Display window
6 STEREO/MONO button (8)(9)
7 TUNING MODE button (8)(9)(10)
8 MEMORY/ENTER button (9)(12)
9 SOURCE DIRECT control (7)
10 ATTENUATOR control (7)
11 FUNCTION button (7)
12 BAND button (8)
13 TUNING/SELECT +/– buttons (8)(9)(10)(12)
14 BALANCE control (7)
15 TREBLE control (7)
16 BASS control (7)
17 PHONES jack (7)
18 POWER switch (7, 8)

Display window



1 Receiving status indicator
2 RDS receiving indicator
3 Tuning mode indication
4 Multi-display
5 MEMORY indicator
6 Preset number indication

Remote Commander



1 MUTING button (7)
2 SOURCE DIRECT button
3 FUNCTION button
Each time you press FUNCTION, the function changes as follows:
MD → TAPE → CD → TUNER → PHONO →...
4 Cassette deck operating buttons
◁ (reverse side play)
▷ (upper side play)
■ (stop)
◀◀ / ▶▶ fast leftward / rightward) (AMS*)
5 Tuner operating buttons
SHIFT: Each time you press SHIFT, the letter (A - C) changes as follows:
A → B → C →...
PRESET –/+: Press - or + to select the number (0 - 9).
6 CD operating buttons
▷ (play)
❚❚ (pause)
■ (stop)
I◀◀ / ▶▶I (AMS*)
7 Tuner/CD numeric buttons
8 Tape control buttons
● REC (recording)
O REC MUTE (recording mute)
❚❚ (pause)
9 CD control buttons
CHECK: Press the button to check the programme.
CLEAR: Press the button to erase a specific track.
CONTINUE: Press the button to play tracks continuously.
SHUFFLE: Press the button to play tracks in random order.
PROGRAM: Press the button to play tracks in the desired order.
REPEAT: Press the button to play tracks repeatedly.
TIME: Press the button to change the time to be displayed.
10 MD control buttons
▷ (play)
❚❚ (pause)
■ (stop)
I◀◀ / ▶▶I (AMS*)
11 SYSTEM POWER switch (8)
12 TUNER/CD switch
13 ATTENUATOR +/– buttons

*AMS: Automatic Music Sensor

SECTION 2
EXPLANATION OF IC TERMINALS

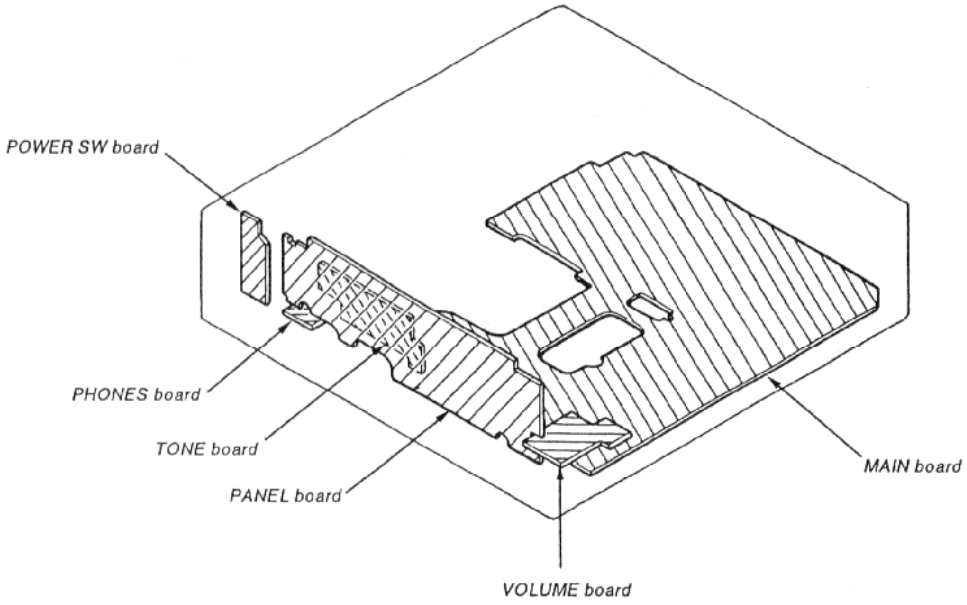
IC701 (μPD78044AGF-109-3B9) SYSTEM CONTROL, FL DRIVE

Pin No	Pin Name	I/O	Description
1	FIP6	O	FL grid output.
2	FIP5	O	FL grid output.
3	FIP4	O	FL grid output.
4	FIP3	O	FL grid output.
5	FIP2	O	FL grid output.
6	FIP1	O	FL grid output.
7	FIP0	O	FL grid output.
8	VDD	-	Power supply +5V
9	—	-	Not used.(Open)
10	PLL CE OUT	O	Chip enable output toTB301.
11	PLL SO OUT	O	Serial data output to TB301.
12	PLL CLOCK OUT	O	Serial clock output to TB301.
13	PLL SI IN	I	Serial data input from TB301.
14	TUNED IN	I	Tuned signal input.
15	STEREO IN	I	Stereo signal input.
16	MUTING OUT(ST)	O	Tuner mute output. "L":Mute
17	RESET	I	Reset signal input.
18	—	-	Not used.(Open)
19	—	-	Not used.(Open)
20	A/D GND	-	GND
21	MUTING OUT(TA)	O	Amp mute output. "L":Mute
22	FUNC A OUT	O	Function switch output.
23	FUNC B OUT	O	Function switch output.
24	FUNC C OUT	O	Function switch output.
25	FUNC D OUT	O	Function switch output.
26	VOL UP	O	Volume motor control output.(UP)
27	VOL DOWN	O	Volume motor control output.(DOWN)
28	KEY IN	I	Key input.(Analog)
29	A/D +5V	-	A/D power supply +5V
30	A/D REF +5V	-	A/D reference voltage. +5V
31	—	-	Not used.(GND)
32	—	-	Not used.(Open)
33	GND	-	GND
34	X1	-	System clock. 5MHz
35	X2	-	System clock. 5MHz
36	SOURCE DIRECT LED OUT	O	Source direct LED output.
37	—	-	Not used.(Open)
38	VOL LED OUT	O	Volume LED output.
39	STANDBY LED OUT	O	Standby LED output.
40	POWER LED OUT	O	Power LED output.
41	RELAY IN	I	SP relay ON/OFF signal input.
42	POWER OUT	O	Power relay control output.
43	AUB OUT	O	AU BUS output.
44	AC CUT IN	I	AC off detect input.
45	RDS CLOCK IN	I	RDS clock input.
46	RDS DATA IN	I	RDS data input.
47	SIRCS IN	I	SIRCS input.
48	(GND)	-	Not used.(GND)
49	AUB IN	I	AU BUS input.
50	—	-	Not used.(Open)

Pin No	Pin Name	I/O	Description
51	—	-	Not used.(Open)
52	VDD	-	Power supply +5V
53	—	-	Not used.(Open)
54	—	-	Not used.(Open)
55	—	-	Not used.(Open)
56	—	-	Not used.(Open)
57	—	-	Not used.(Open)
58	VERSION C	I	Destination identification input.
59	VERSION B	I	Destination identification input.
60	VERSION A	I	Destination identification input.
61	—	-	Not used.(Open)
62	FIP24	O	FL segment output.
63	FIP23	O	FL segment output.
64	FIP22	O	FL segment output.
65	FIP21	O	FL segment output.
66	FIP20	O	FL segment output.
67	FIP19	O	FL segment output.
68	FIP18	O	FL segment output.
69	FIP17	O	FL segment output.
70	FIP16	O	FL segment output.
71	-29V	-	-29V driving power for FL tube.
72	FIP15	O	FL segment output.
73	FIP14	O	FL segment output.
74	FIP13	O	FL segment output.
75	FIP12	O	FL segment output.
76	FIP11	O	FL segment output.
77	FIP10	O	FL segment output.
78	FIP9	O	FL grid output.
79	FIP8	O	FL grid output.
80	FIP7	O	FL grid output.

SECTION 3
DIAGRAMS

• CIRCUIT BOARDSLOCATION



• SEMICONDUCTOR LOCATION

Ref. No.	Location	Ref. No.	Loca
D101	G - 4	D707	D -
D102	F - 4	D708	I - 2
D103	F - 5		
D104	F - 5		
D105	G - 4	IC101	I - 4
		IC102	F -
D106	H - 4	IC103	F -
D201	G - 11	IC104	F -
D202	G - 11	IC105	G -
D203	H - 11		
D204	H - 10	IC203	D -
		IC301	J - 7
D205	G - 10	IC302	J - 8
D206	J - 10	IC401	I - 1
D207	I - 10	IC501	G -
D208	I - 10		
D209	I - 12	IC601	I - 5
		IC701	D -
D210	I - 12	IC702	D -
D211	I - 12	IC703	D -
D212	J - 12		
D213	D - 6		
D214	D - 6	Q101	H -
		Q151	H -
D215	C - 5	Q201	D -
D216	C - 5	Q202	J - 1
D217	H - 11	Q203	H -
D218	C - 5		
D219	D - 7	Q204	I - 1
		Q205	I - 1
D220	D - 7	Q206	J - 1
D221	D - 8	Q301	J - 6
D222	D - 8	Q302	J - 6
D401	I - 18		
D601	H - 7	Q601	H -
		Q651	H -
D602	H - 7	Q701	D -
D603	D - 13	Q702	D -
D651	H - 7	Q703	D -
D652	H - 7		
D701	C - 17	Q704	E -
		Q705	E -
D702	C - 16		
D703	D - 15		
D704	D - 16		
D705	E - 17		
D706	D - 20		

Note:

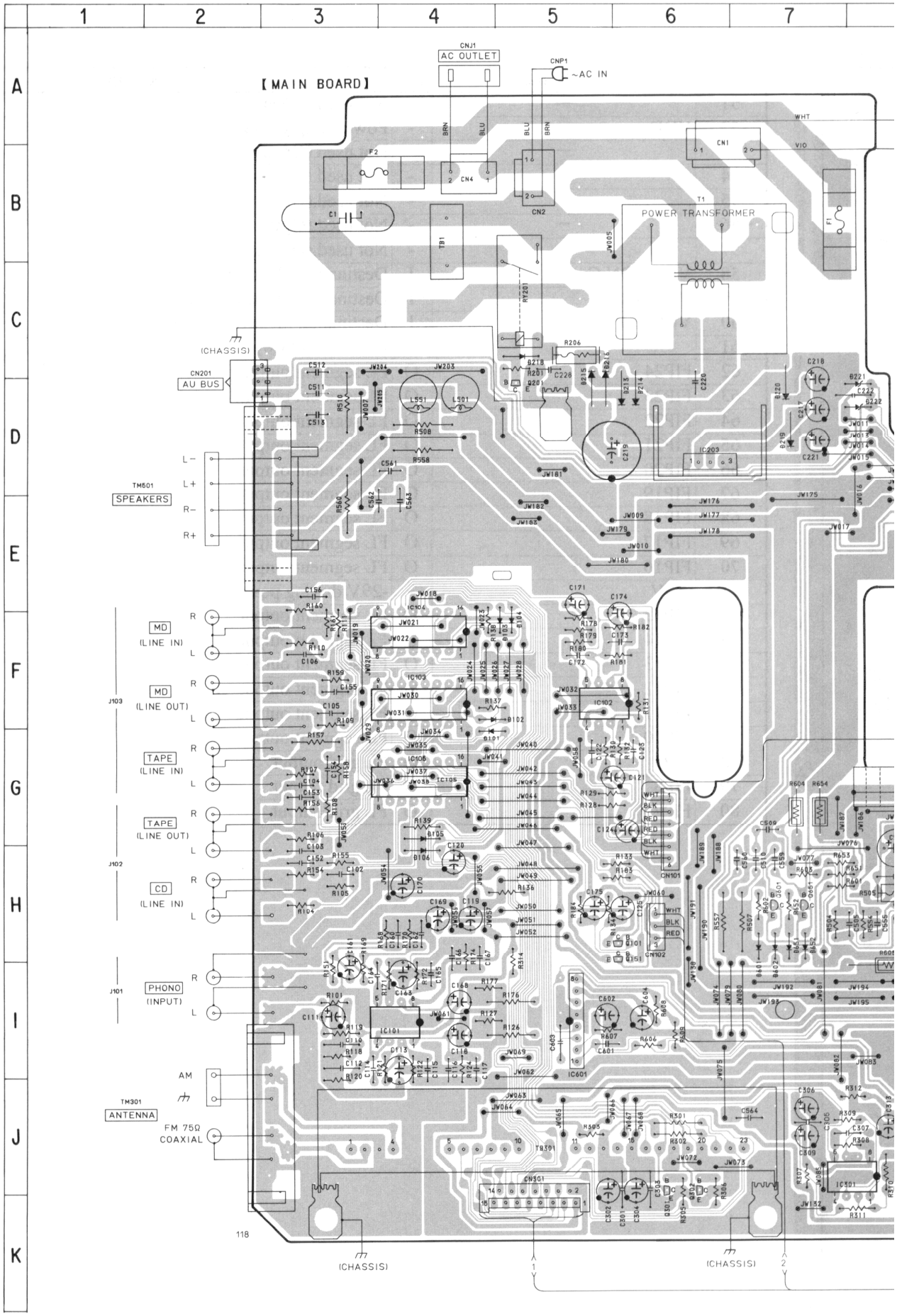
- O— : parts extracted from the compone
- ▒▒▒ : Pattern on the side which is see
- Abbreviation
  G : German

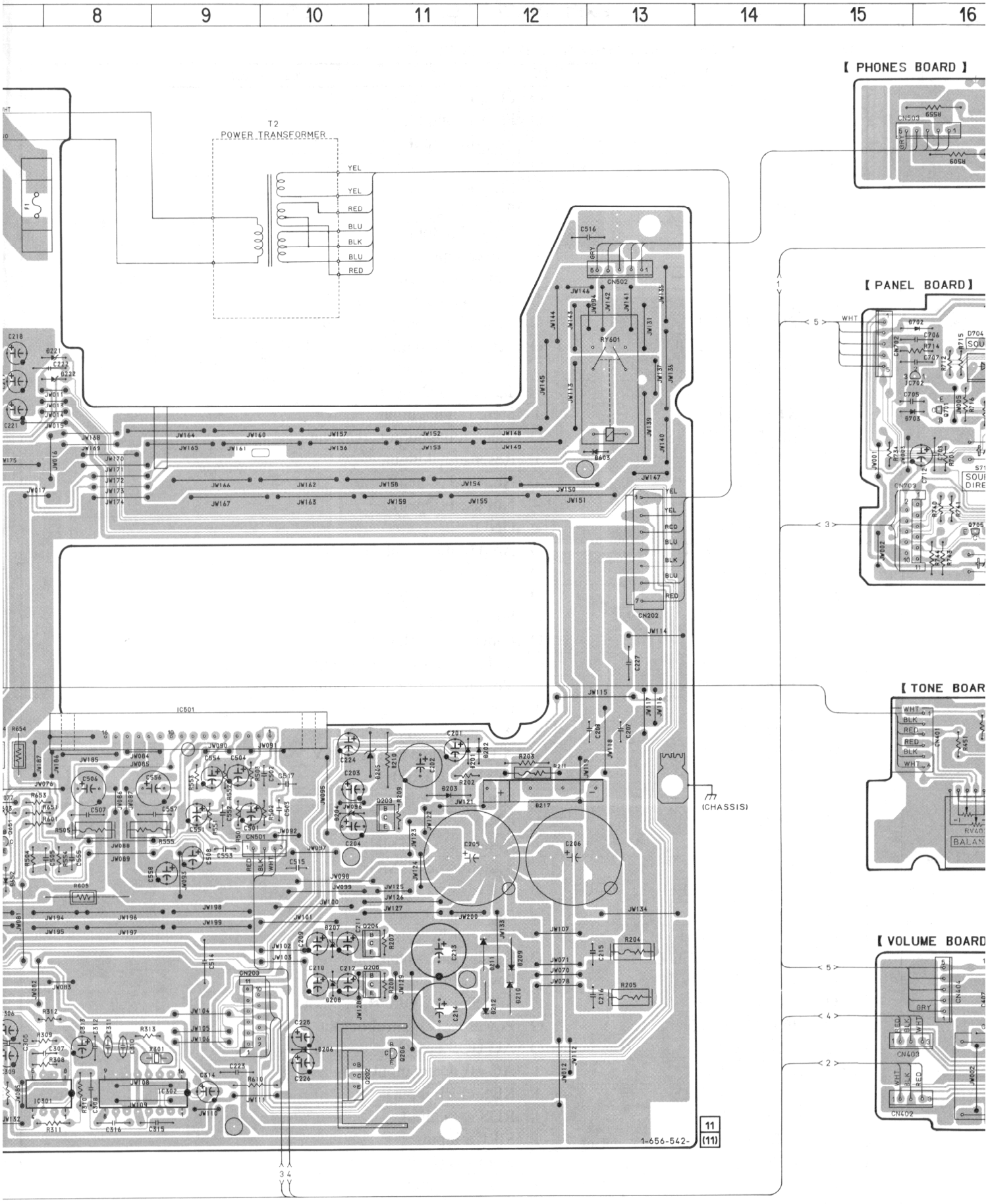
3-1. PRINTED WIRING BOARDS

CATION

ef. No.	Location
707	D - 20
708	I - 20
101	I - 4
102	F - 5
103	F - 4
104	F - 4
105	G - 4
203	D - 6
301	J - 7
302	J - 8
401	I - 17
501	G - 9
601	I - 5
701	D - 19
702	D - 15
703	D - 22
101	H - 6
151	H - 6
201	D - 5
202	J - 10
203	H - 11
204	I - 10
205	I - 10
206	J - 11
301	J - 6
302	J - 6
601	H - 7
651	H - 7
701	D - 16
702	D - 17
703	D - 17
704	E - 18
705	E - 16

rom the component side.
side which is seen.




8
9
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11
12
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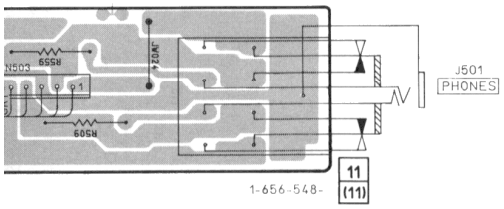
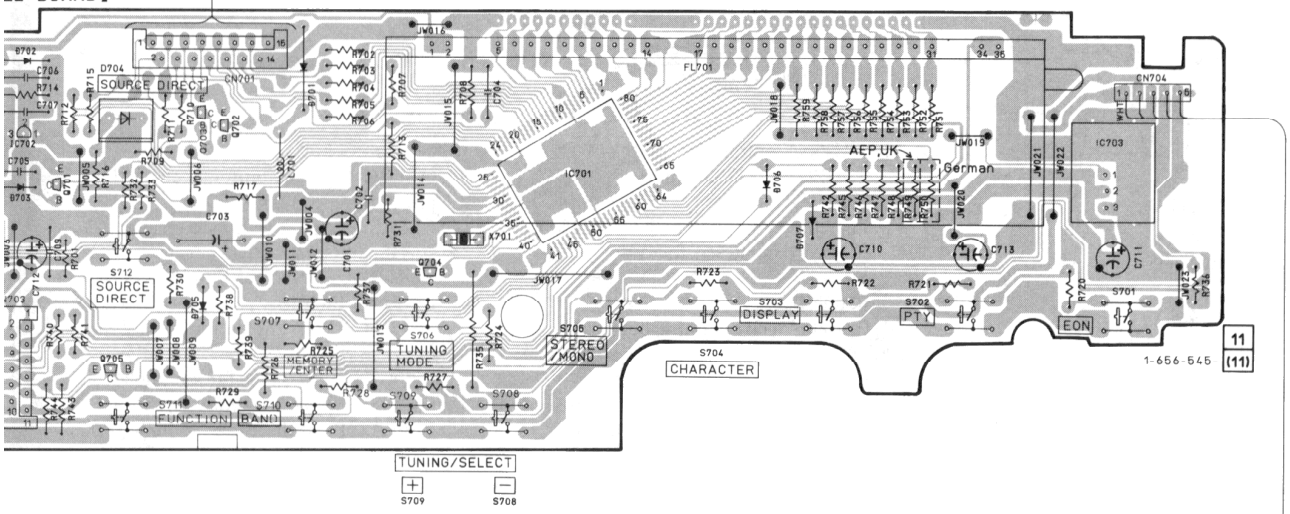
14
15
16
【 PHONES BOARD 】
【 PANEL BOARD 】
【 TONE BOAR
【 VOLUME BOARD
T2
POWER TRANSFORMER
YEL
YEL
RED
BLU
BLK
BLU
RED
CN602
CN202
CN203
CN501
CN503
CN401
CN402
CN403
IC501
IC301
IC302
RY601
(CHASSIS)
1-656-542-
11
(11)

16	17	18	19	20	21	22	23

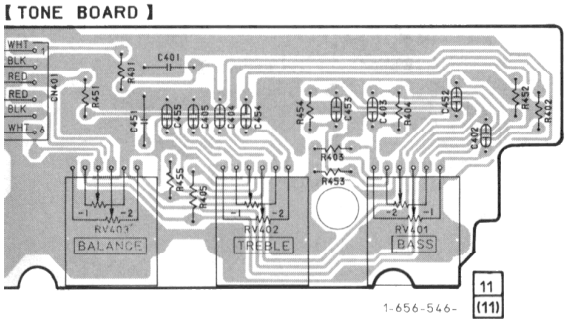
S BOARD]



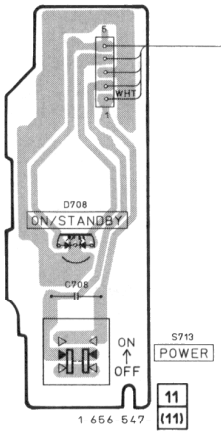
EL BOARD]



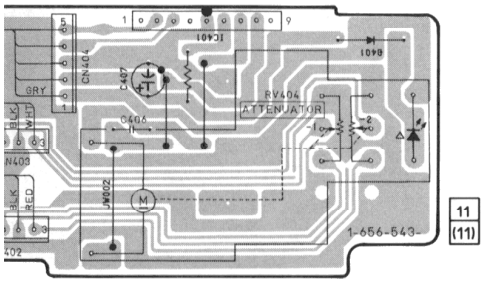
[TONE BOARD]



[POWER SW BOARD]

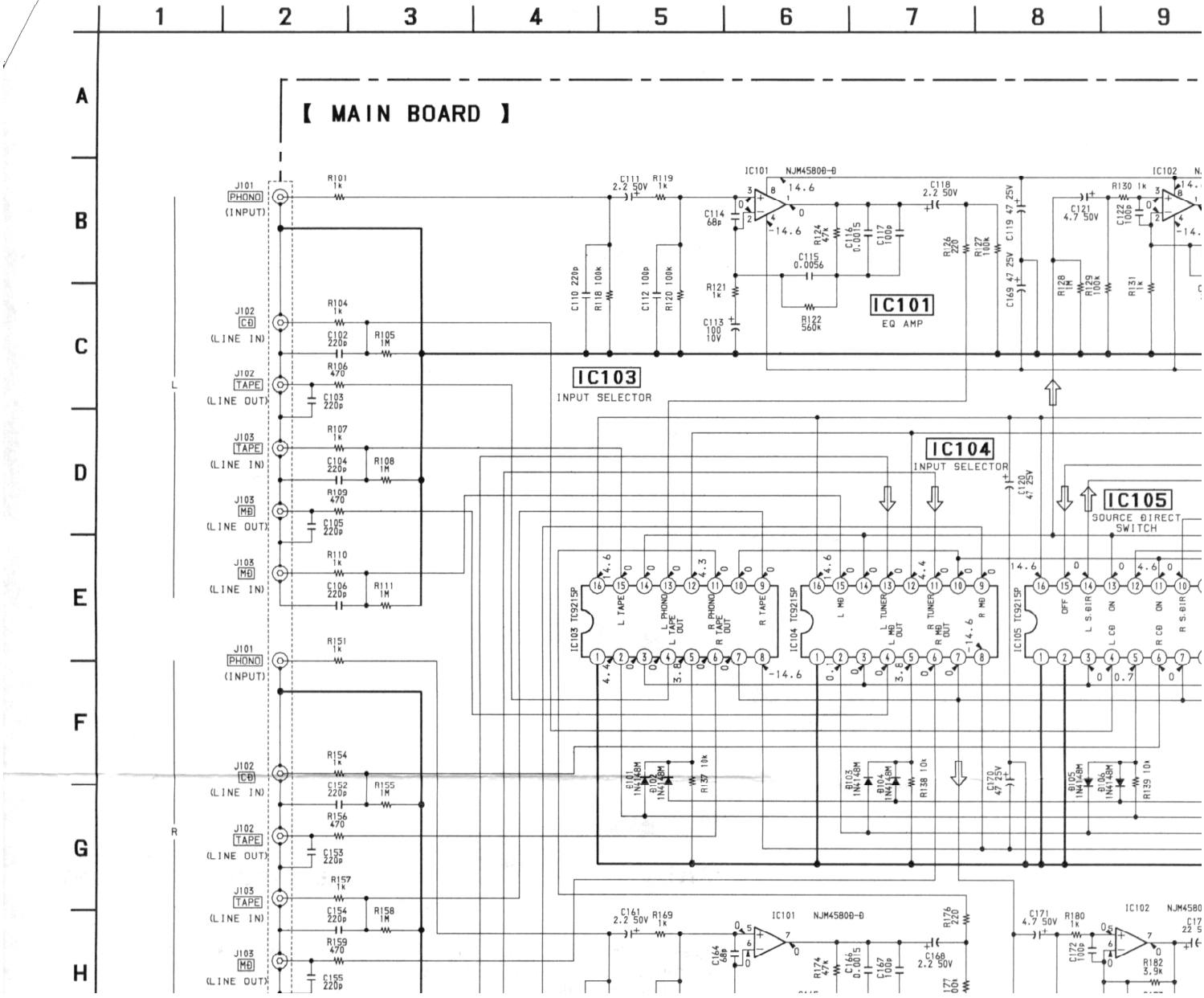


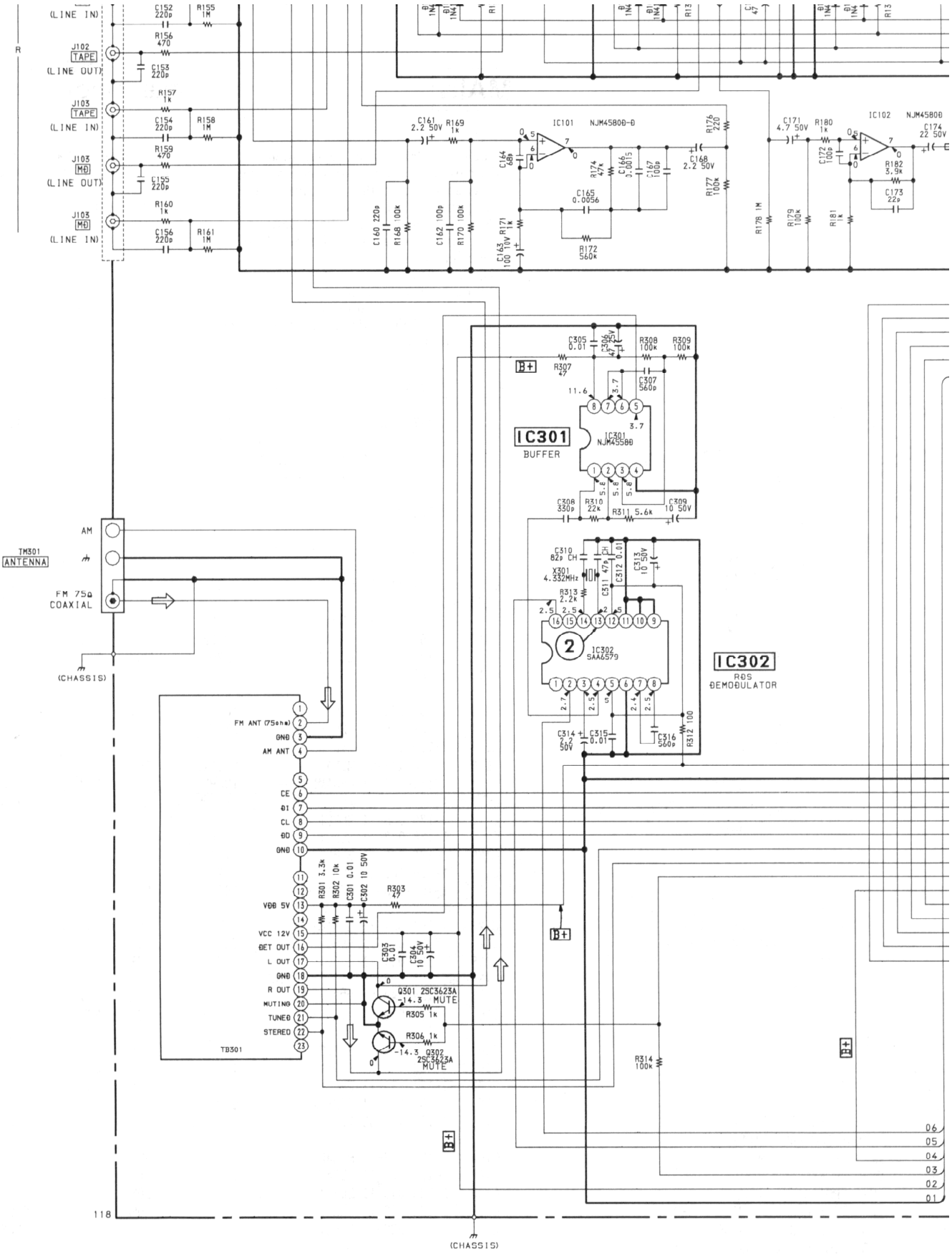
LUME BOARD]

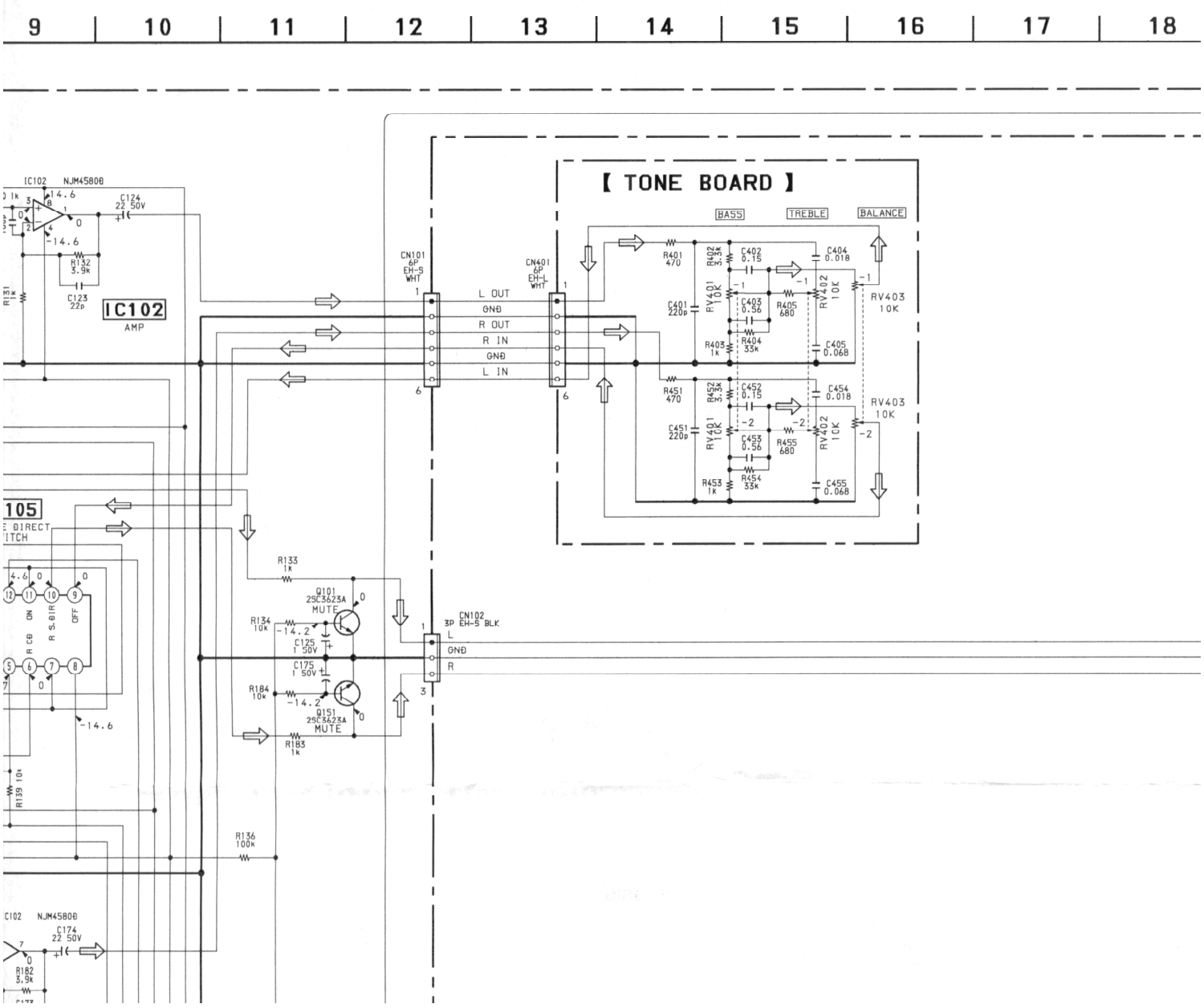


3-2. SCHEMATIC DIAGRAM

● Refer to page 16 for IC Block Diagrams.




(LINE IN)
J102 TAPE (LINE OUT)
J103 TAPE (LINE IN)
J103 MD (LINE OUT)
J103 MD (LINE IN)
IC101 NJM4580D-D
IC102 NJM4580D
IC301 BUFFER
IC301 NJM4558D
IC302 RDS DEMODULATOR
IC302 SAA6579
TM301 ANTENNA
AM
FM 75Ω COAXIAL
(CHASSIS)
TB301
FM ANT (75ohm)
GND
AM ANT
CE
DI
CL
DO
VDD 5V
VCC 12V
DET OUT
L OUT
R OUT
MUTING
TUNED
STEREO
Q301 2SC3623A MUTE
Q302 2SC3623A MUTE
X301 4.332MHz
B+
118
01
02
03
04
05
06


9
10
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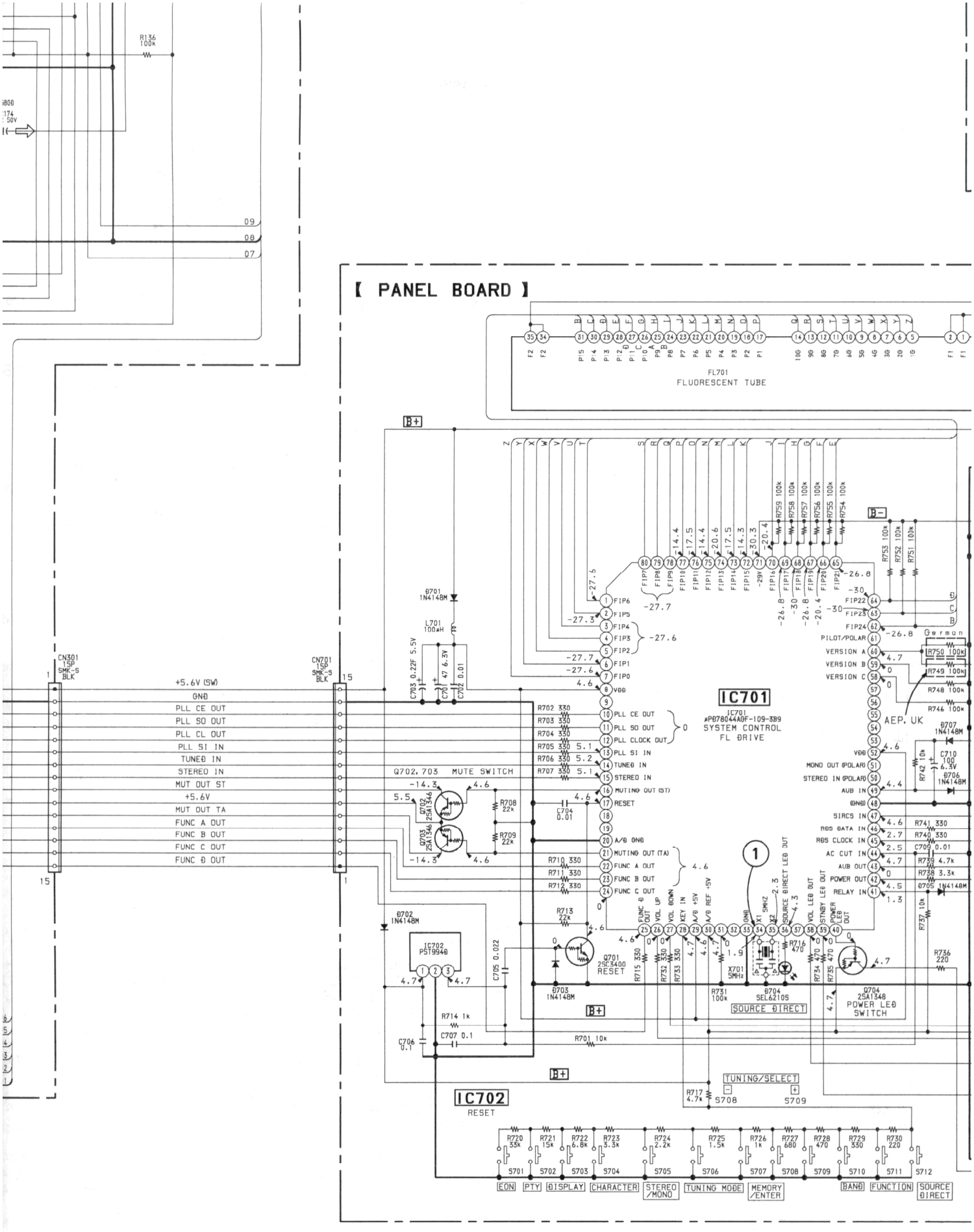
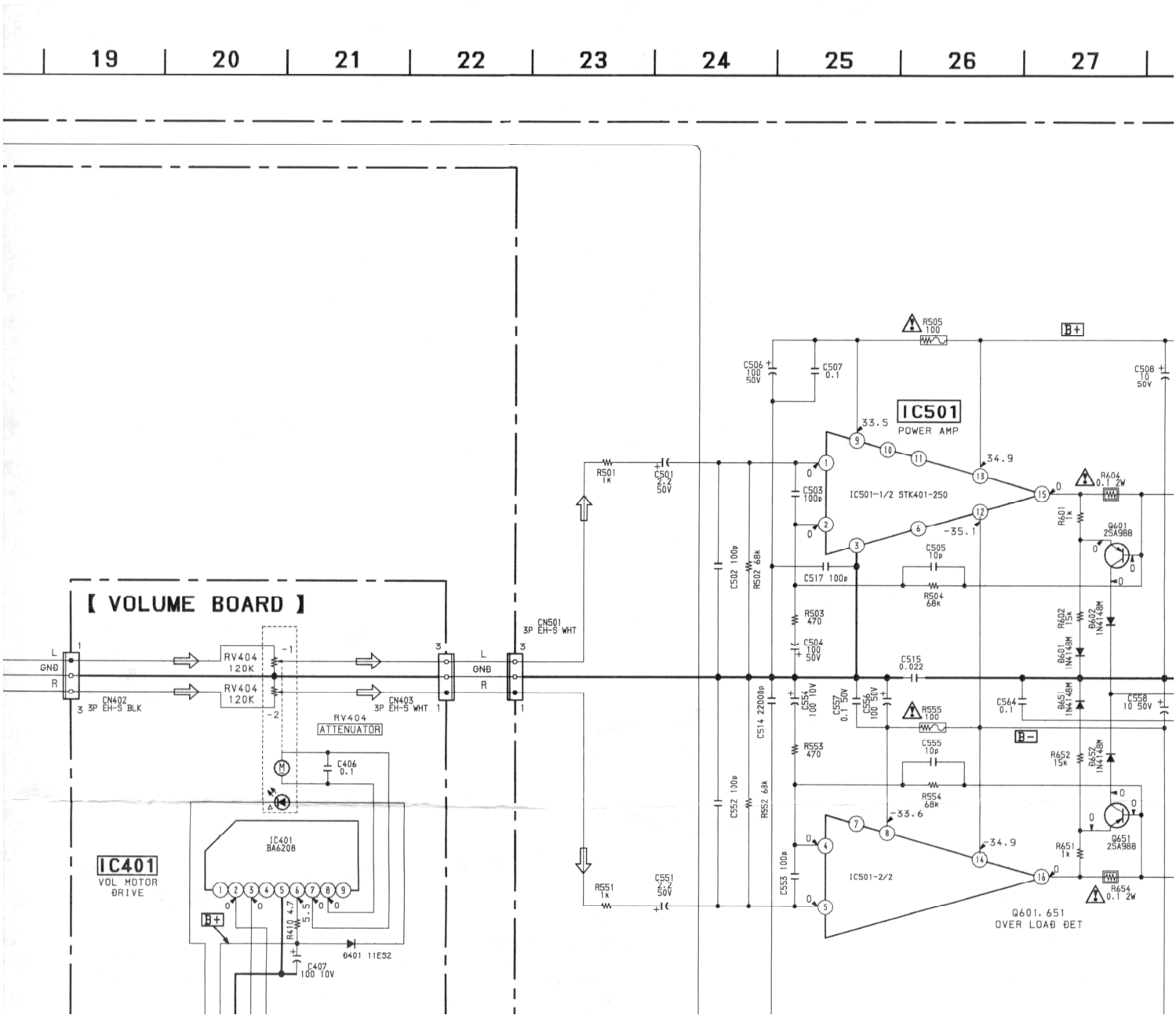
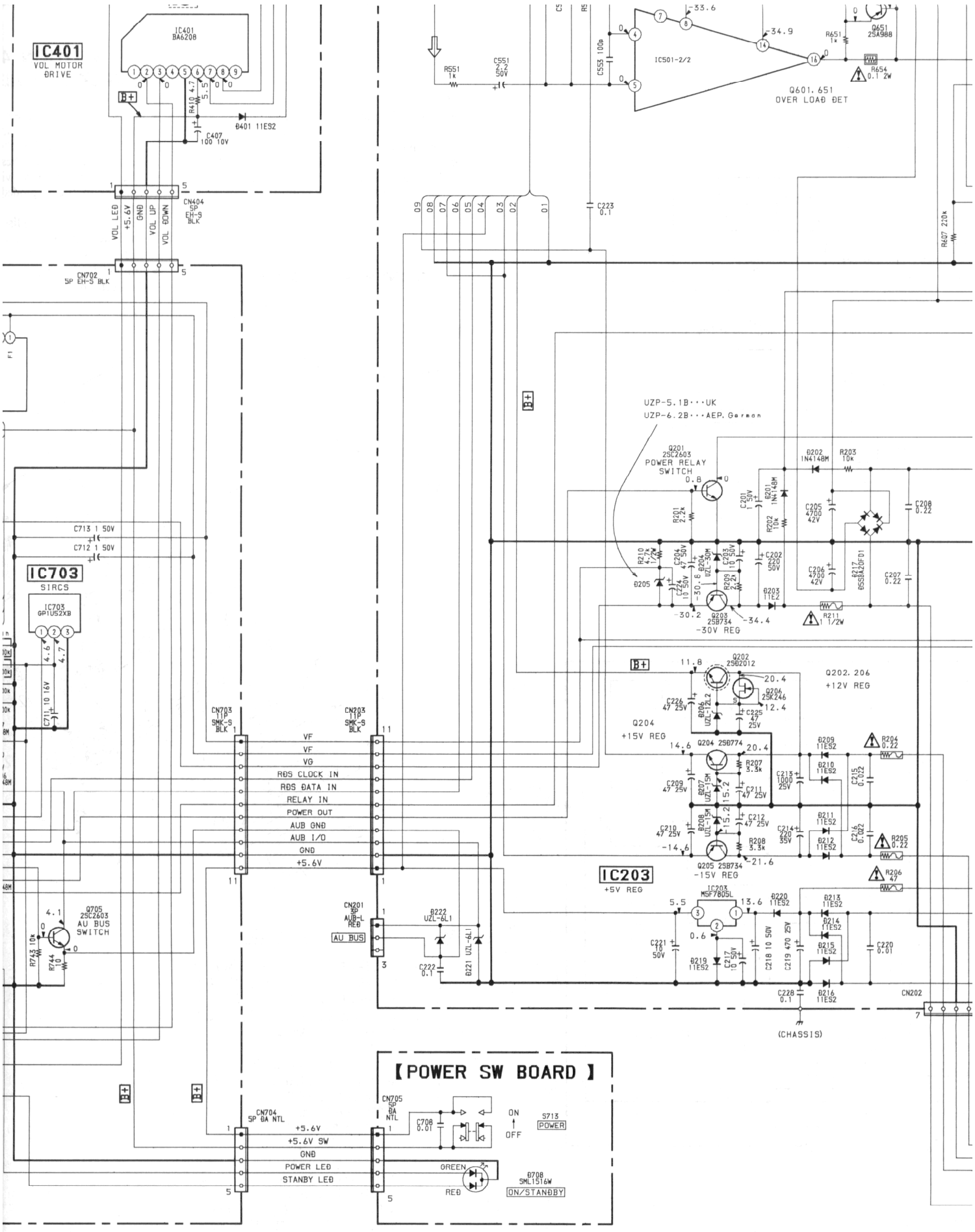
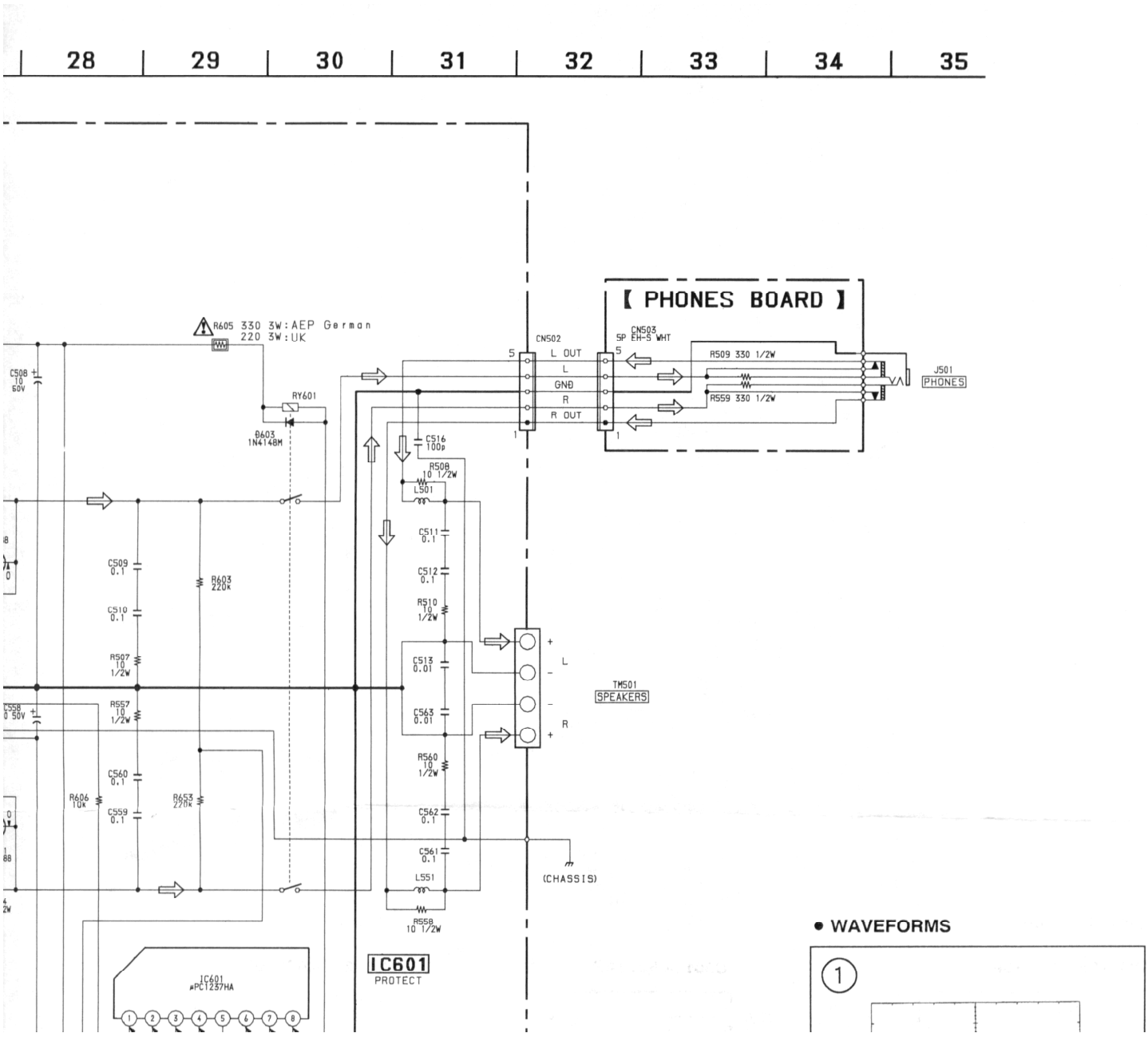
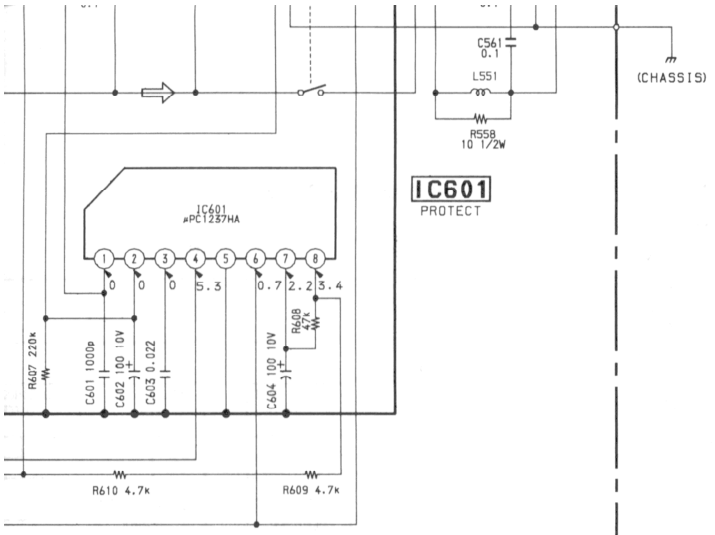
12
13
14
15
16
17
18
【 TONE BOARD 】
BASS
TREBLE
BALANCE
IC102 NJM4580D
IC102
AMP
CN101 6P EH-S WHT
CN401 6P EH-L WHT
L OUT
GND
R OUT
R IN
GND
L IN
CN102 3P EH-S BLK
L
GND
R
RV403 10K
Q101 2SC3623A MUTE
Q151 2SC3623A MUTE
105

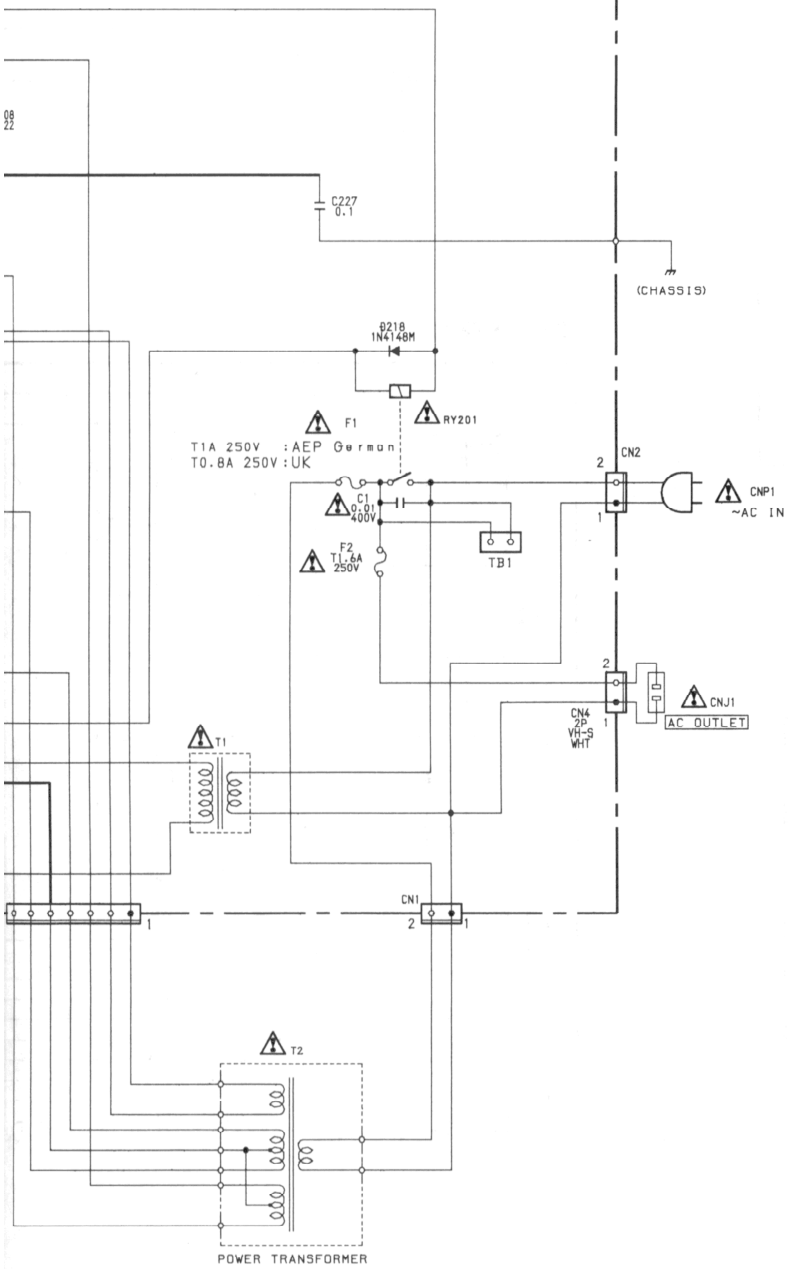

【 PANEL BOARD 】
FL701
FLUORESCENT TUBE
B+
B-
IC701
#PD78044A0F-109-3B9
SYSTEM CONTROL
FL DRIVE
IC702
RESET
CN301
15P
SMK-S
BLK
CN701
15P
SMK-S
BLK
+5.6V (SW)
GND
PLL CE OUT
PLL SO OUT
PLL CL OUT
PLL SI IN
TUNED IN
STEREO IN
MUT OUT ST
+5.6V
MUT OUT TA
FUNC A OUT
FUNC B OUT
FUNC C OUT
FUNC D OUT
Q702,703 MUTE SWITCH
Q702 2SA1346
Q703 2SA1346
Q701 2SC3400
RESET
Q704 2SA1348
POWER LED SWITCH
D701 1N4148M
D702 1N4148M
D703 1N4148M
D704 SEL6210S
SOURCE DIRECT
D705 1N4148M
D706 1N4148M
D707 1N4148M
L701 100uH
X701 5MHz
X1
X2
TUNING/SELECT
S708
S709
PILOT/POLAR
VERSION A
VERSION B
VERSION C
German
AEP, UK
MONO OUT @POLAR
STEREO IN @POLAR
AUB IN
AUB OUT
POWER OUT
RELAY IN
SIRCS IN
RDS DATA IN
RDS CLOCK IN
AC CUT IN
VOL UP
VOL DOWN
KEY IN
A/D +5V
A/D REF +5V
SOURCE DIRECT LED OUT
VOL LED OUT
STNBY LED OUT
POWER LED OUT
EON
PTY
DISPLAY
CHARACTER
STEREO /MONO
TUNING MODE
MEMORY /ENTER
BAND
FUNCTION
SOURCE DIRECT
R136 100k
09
08
07


19
20
21
22
23
24
25
26
27
【 VOLUME BOARD 】
IC401
VOL MOTOR
DRIVE
IC401
BA6208
RV404
120K
RV404
120K
RV404
ATTENUATOR
CN402
3P EH-5 BLK
CN403
3P EH-5 WHT
CN501
3P EH-5 WHT
L
GND
R
C406
0.1
R410 4.7
C407
100 10V
D401 11E52
B+
IC501
POWER AMP
IC501-1/2 STK401-250
IC501-2/2
R505
100
C506
100
50V
C507
0.1
C508
10
50V
R501
1k
C501
2.2
50V
C503
100p
C502 100p
R502 68k
C517 100p
R504
68k
C505
10p
R503
470
C504
100
50V
C515
0.022
R555
100
C555
10p
R554
68k
C552 100p
R552 68k
C553 100p
R553
470
C554
100 10V
C557
0.1 50V
C556
100 10V
C514 2200p
C564
0.1
C558
10 50V
R551
1k
C551
2.2
50V
B-
R604
0.1 2W
R601
1k
Q601
2SA988
R602
15k
D602
1N4148M
D601
1N4148M
D651
1N4148M
R652
15k
D652
1N4148M
Q651
2SA988
R651
1k
R654
0.1 2W
Q601, 651
OVER LOAD DET
33.5
34.9
-35.1
33.6
-34.9

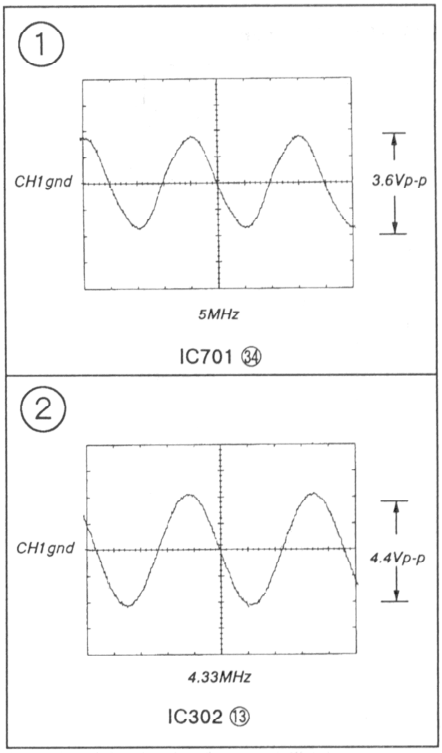

IC401
VOL MOTOR DRIVE
IC401 BA6208
B401 11ES2
C407 100 10V
R410 4.7
CN404 5P EH-S BLK
VOL LED
+5.6V
GND
VOL UP
VOL DOWN
CN702 5P EH-S BLK
IC501-2/2
Q601, 651 OVER LOAD DET
R551 1k
C551 2.2 50V
C553 100p
R651 1k
Q651 2SA988
R654 0.1 2W
C223 0.1
R407 210k
UZP-5.1B···UK
UZP-6.2B···AEP, German
Q201 2SC2603 POWER RELAY SWITCH
B202 1N4148M
R203 10k
B201 1N4148M
C201 1 50V
R201 2.2k
R202 10k
C205 4700 42V
C208 0.22
C206 4700 42V
B217 ESS8A20F-D1
C207 0.22
R210 4.7k 1/2W
C204 47 50V
B204 UZL-2.2
C203 10 50V
C202 220 50V
C224 10 50V
B205
R209 2.2k
B203 1IE2
Q203 2SB734 -30V REG
R211 1 1/2W
C713 1 50V
C712 1 50V
IC703 SIRCS
IC703 GP1U52XB
C711 10 16V
Q202 2SD2012
Q206 2SK246
Q202, 206 +12V REG
B206 UZL-22
C226 47 25V
C225 47 25V
Q204 +15V REG
Q204 2SB774
B207 UZL-15M
B208 UZL-15M
R207 3.3k
R208 3.3k
C209 47 25V
C210 47 25V
C211 47 25V
C212 47 25V
C213 1000 25V
C214 220 35V
C215 0.02
C216 0.02
B209 1IES2
B210 1IES2
B211 1IES2
B212 1IES2
R204 0.22
R205 0.22
R206 47
Q205 2SB734 -15V REG
IC203 +5V REG
IC203 MSF7805L
B220 1IES2
B213 1IES2
B214 1IES2
B215 1IES2
B219 1IES2
B216 1IES2
C221 10 50V
C217 10 50V
C218 10 50V
C219 470 25V
C220 0.01
C228 0.1
CN202
(CHASSIS)
CN703 11P SMK-S BLK
CN203 11P SMK-S BLK
VF
VF
VG
RDS CLOCK IN
RDS DATA IN
RELAY IN
POWER OUT
AUB GND
AUB I/O
GND
+5.6V
CN201 3P AUB-L RED
AU BUS
B222 UZL-6L1
B221 UZL-6L1
C222 0.1
Q705 2SC2603 AU BUS SWITCH
R743 10k
R744 10
【POWER SW BOARD】
CN704 5P BA NTL
CN705 5P BA NTL
+5.6V
+5.6V SW
GND
POWER LED
STANBY LED
C708 0.01
ON
OFF
S713 POWER
GREEN
RED
B708 SML1516W ON/STANDBY


28
29
30
31
32
33
34
35
【 PHONES BOARD 】
CN502
CN503
5P EH-5 WHT
L OUT
L
GND
R
R OUT
R509 330 1/2W
R559 330 1/2W
J501
PHONES
R605 330 3W : AEP German
220 3W : UK
RY601
D603
1N4148M
C516
100p
R508
10 1/2W
L501
C511
0.1
C512
0.1
R510
10
1/2W
C513
0.01
C563
0.01
R560
10
1/2W
C562
0.1
C561
0.1
L551
R558
10 1/2W
TM501
SPEAKERS
(CHASSIS)
C508
10
50V
C509
0.1
C510
0.1
R507
10
1/2W
R603
220k
C558
10 50V
R557
10
1/2W
C560
0.1
R606
10k
C559
0.1
R653
220k
IC601
PROTECT
IC601
μPC1237HA
1 2 3 4 5 6 7 8
• WAVEFORMS
①





• WAVEFORMS



Note :

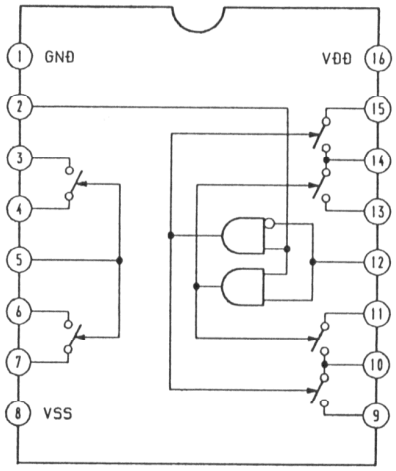
- All capacitors are in μ F unless otherwise noted. pF: μ μ F 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- △ : internal component.
- ▭ : nonflammable resistor.
- ▭ : fusible resistor.

Note : The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

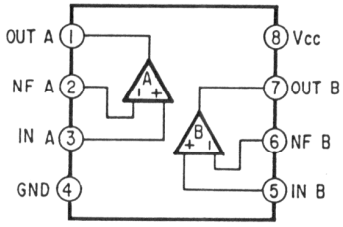
- **B+** : B+ Line
- **B −** : B − Line
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
- Abbreviation
  G : German

• IC BLOCK DIAGRAMS

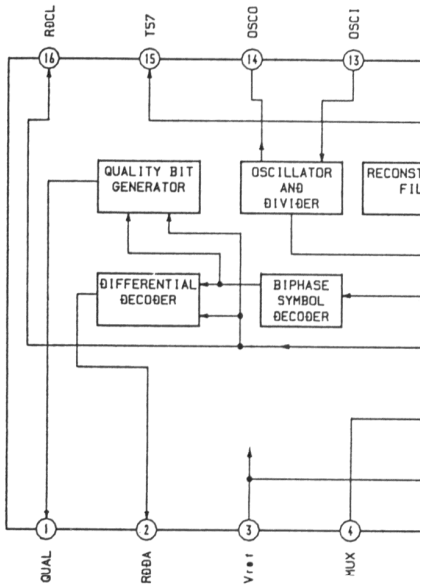
IC103, 104, 105 TC9215P



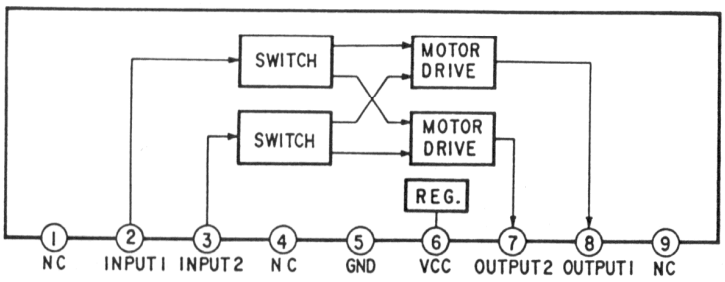
IC301 M5218AP



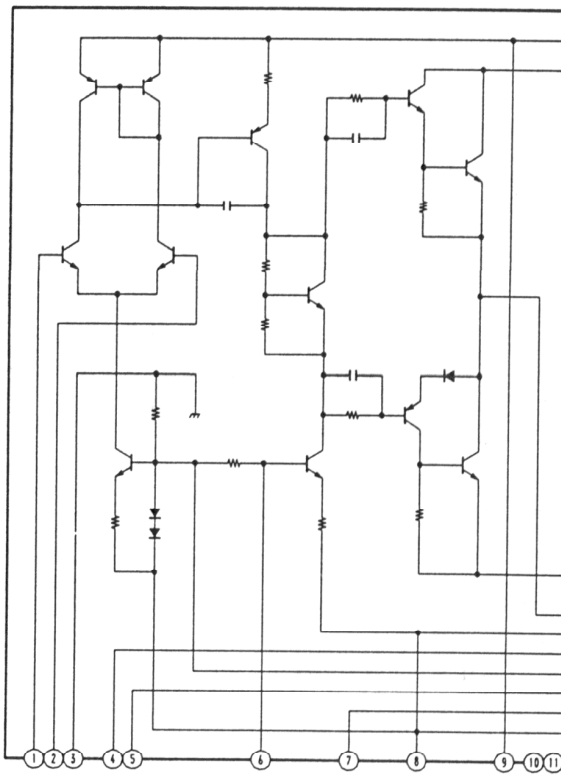
IC302 SAA6579



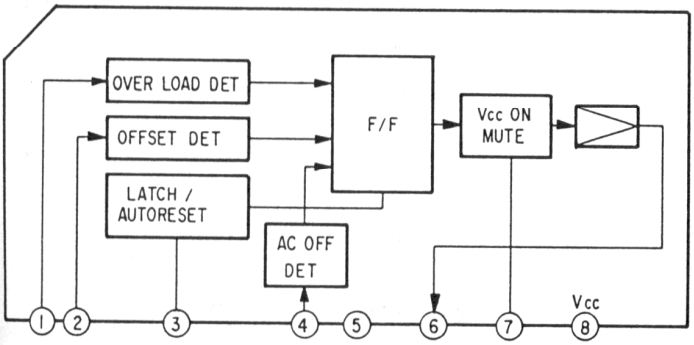
IC401 BA6208

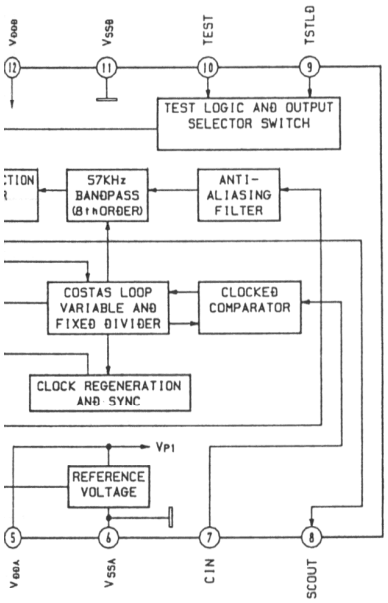


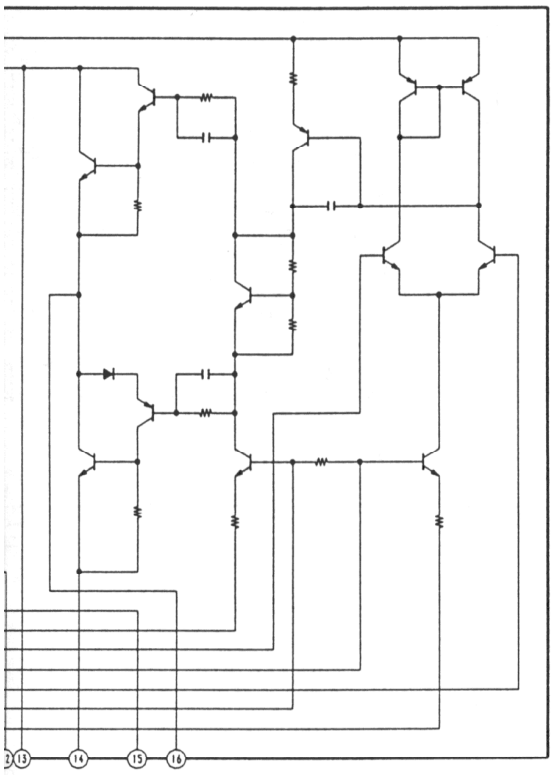
IC501 STK401-250



IC601 μ PC1237HA





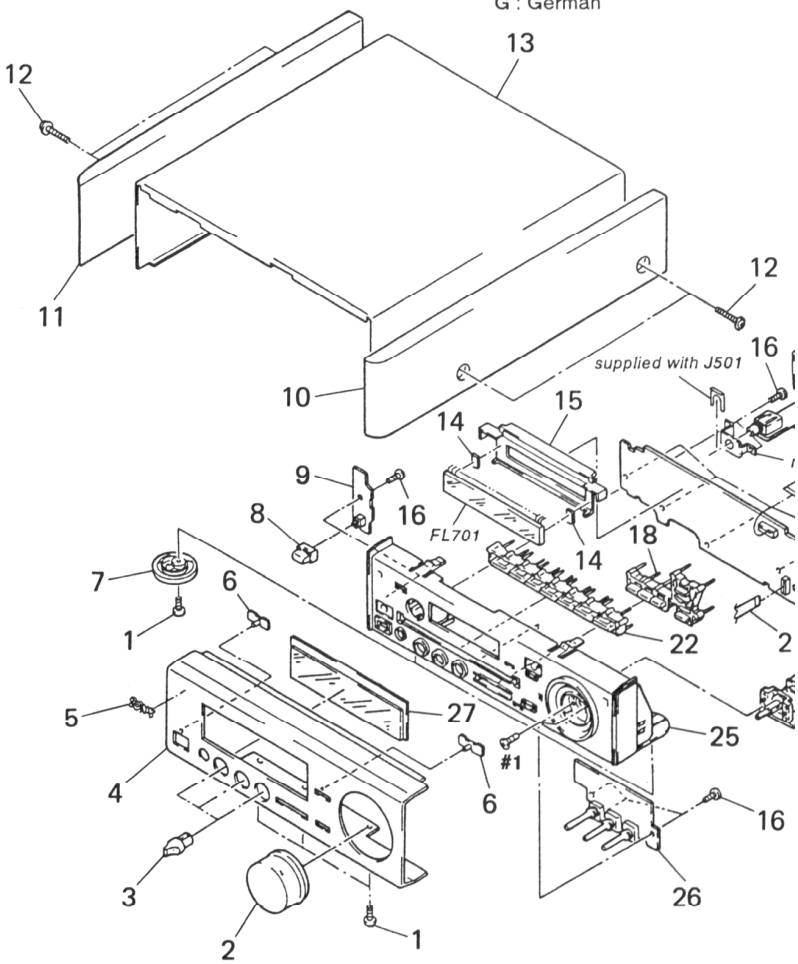


SECTION 4
EXPLODED VIEWS

NOTE :

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * "are not stock they are seldom required for service. Some delay should be pated when ordering these items
- The mechanical parts with no r number in the exploded views supplied.
- Hardware (# mark) list and acc and packing materials are give last of this parts list.
- Abbreviation
  G : German

4-1. FRONT PANEL SECTION

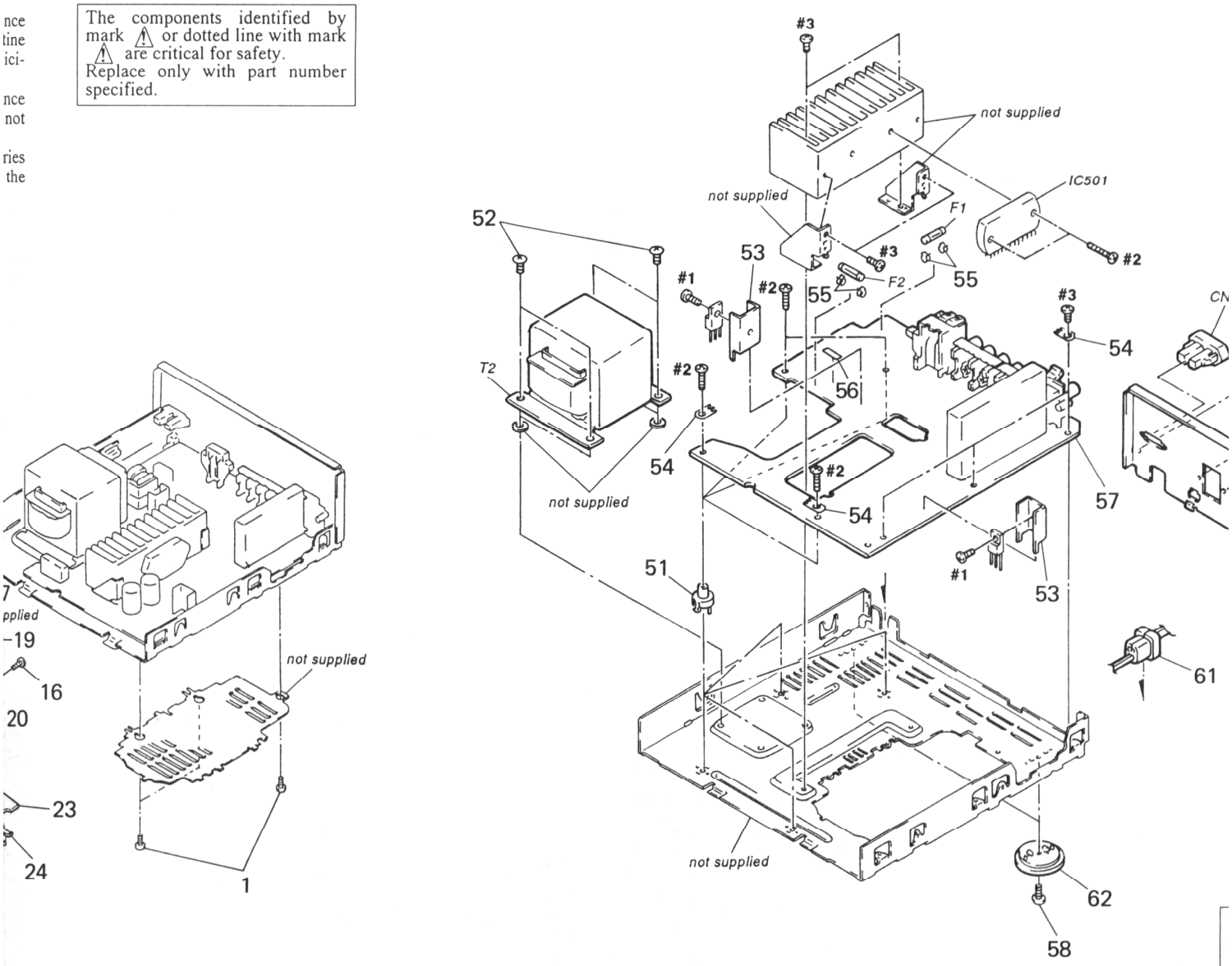


Ref.No.	Part No.	Description	Remark
1	3-704-515-21	SCREW (BV/RING)	
2	X-4945-130-1	KNOB (DIA. 43) ASSY	
3	4-975-516-01	KNOB (DIA 13) (B)	
4	4-975-496-01	PANEL (STR), FRONT	
5	4-969-961-11	EMBLEM (NO.4), SONY	
6	4-969-275-01	INDICATOR	
7	X-4945-079-1	RING ASSY, FOOT	
8	4-968-098-01	BUTTON (P)	
* 9	1-656-547-11	POWER SW BOARD	
10	X-4945-477-1	PANEL (R) ASSY, SIDE	
11	X-4945-476-1	PANEL (L) ASSY, SIDE	
12	4-969-954-01	SCREW (SIDE PANEL)	
13	4-977-076-11	CASE	
* 14	4-945-305-01	CUSHION (FL TUBE)	
* 15	4-942-301-51	HOLDER, FL TUBE	

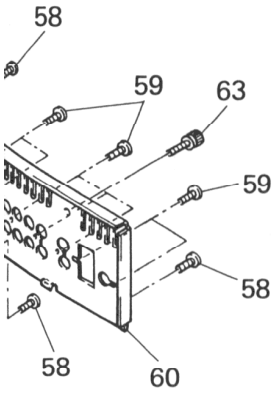
Ref.No.	Par
16	4-9
* 17	1-6
18	4-9
19	1-7
* 20	A-4
* 20	A-4
21	1-7
22	4-9
* 23	1-6
24	3-3
25	X-4
* 26	1-6
27	4-9
FL701	1-5

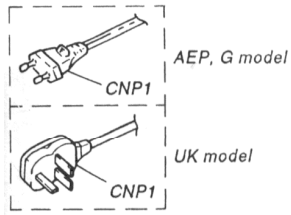
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

4-2. CHASSIS SECTION



Ref.No.	Part No.	Description	Remark
		20-01 SCREW (2.6×8), +BVTP	
		48-11 PHONES BOARD	
		94-01 BUTTON (5)	
		28-11 WIRE (FLAT TYPE) (15 CORE)	
		532-A PANEL BOARD, COMPLETE (AEP, UK)	
		537-A PANEL BOARD, COMPLETE (G)	
		25-11 WIRE (FLAT TYPE) (11 CORE)	
		93-01 BUTTON (7)	
		43-11 VOLUME BOARD	
		47-21 HOLDER, PCB	
		243-1 BASE ASSY, PANEL	
		46-11 TONE BOARD	
		95-01 WINDOW	
		41-11 INDICATOR TUBE, FLUORESCENT	
51	4-968-100-01	SUPPORT, PC	
52	4-381-962-11	SCREW +BVTT 4×8 (S)	
* 53	4-880-403-11	HEAT SINK	
54	1-537-770-21	TERMINAL BOARD, GROUND	
55	1-533-293-11	FUSE HOLDER	
56	3-701-947-10	LABEL (T800MA), FUSE (UK)	
* 57	A-4378-530-A	MAIN BOARD, COMPLETE (UK)	
* 57	A-4378-780-A	MAIN BOARD, COMPLETE (AEP)	
* 57	A-4378-536-A	MAIN BOARD, COMPLETE (G)	
58	3-704-515-21	SCREW (BV/RING)	
59	3-704-515-41	SCREW (BV/RING)	
60	4-975-498-11	PANEL, BACK (AEP)	
60	4-975-498-21	PANEL, BACK (G)	
60	4-975-498-31	PANEL,	
61	3-703-244-00	BUSHING	
62	X-4945-129-1	FOOT AS	
63	4-947-010-01	SCREW,	
⚠CNJ1	1-526-794-11	OUTLET,	
⚠CNP1	1-575-651-21	CORD, P	
⚠CNP1	1-696-571-11	CORD, P	
⚠F1	1-532-078-00	FUSE, TI	
⚠F1	1-532-215-00	FUSE, TI	
⚠F2	1-532-259-00	FUSE, TI	
IC501	8-749-011-51	IC STK4	
⚠T2	1-427-974-11	TRANSFO	
⚠T2	1-427-975-11	TRANSFO	





he components identified by
ark ⚠ or dotted line with mark
⚠ are critical for safety.
eplace only with part number
ecified.

ion	Remark
ACK (UK)	
(2104), CORD	
Y	
EEDER FIXED	
AC (AC OUTLET)	
WER (AEP, G)	
WER (UK)	
B-LAG (T1A 250V) (AEP, G)	
B-LAG (T0.8A 250V) (UK)	
B-LAG (T1.6A 250V)	
1-250	
MER, POWER (AEP, G)	
MER, POWER (UK)	

MAIN

SECTION 5
ELECTRICAL PARTS LIST

NOTE :
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms
  METAL : Metal-film resistor
  METAL OXIDE : Metal oxide-film resistor
  F : nonflammable
- Items marked " * "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : μ , for example :
  uA.... : μ A.... , uPA.... : μ PA....
  uPB.... : μ PB.... , uPC.... : μ PC....
  uPD.... : μ PD....
- CAPACITORS
  uF : μ F
- COILS
  uH : μ H

The compone
mark ⚠ or do
⚠ are critica
Replace only
specified.

When indicati
ence number,
board.

- Abbreviation
  G : German

Ref.No.	Part No.	Description			Remark
*	A-4378-530-A	MAIN BOARD, COMPLETE (UK)			
*	A-4378-536-A	MAIN BOARD, COMPLETE (G)			
*	A-4378-780-A	MAIN BOARD, COMPLETE (AEP)			
		**********			
	1-533-293-11	FUSE HOLDER			
		< CAPACITOR >			
⚠C1	1-161-744-51	CERAMIC	0.01uF		400V
C102-106					
	1-162-286-31	CERAMIC	220PF	10%	50V
C110	1-162-286-31	CERAMIC	220PF	10%	50V
C111	1-126-045-11	ELECT	2.2uF	20%	50V
C112	1-162-282-31	CERAMIC	100PF	10%	50V
C113	1-124-994-11	ELECT	100uF	20%	10V
C114	1-162-219-31	CERAMIC	68PF	5%	50V
C115	1-130-480-00	MYLAR	0.0056uF	5%	50V
C116	1-130-473-00	MYLAR	0.0015uF	5%	50V
C117	1-164-070-11	CERAMIC	100PF	5%	50V
C118	1-126-045-11	ELECT	2.2uF	20%	50V
C119	1-126-022-11	ELECT	47uF	20%	25V
C120	1-126-022-11	ELECT	47uF	20%	25V
C121	1-126-163-11	ELECT	4.7uF	20%	50V
C122	1-164-070-11	CERAMIC	100PF	5%	50V
C123	1-164-027-11	CERAMIC	22PF	5%	50V
C124	1-126-049-11	ELECT	22uF	20%	50V
C125	1-126-044-11	ELECT	1uF	20%	50V
C152-156					
	1-162-286-31	CERAMIC	220PF	10%	50V
C160	1-162-286-31	CERAMIC	220PF	10%	50V
C161	1-126-045-11	ELECT	2.2uF	20%	50V
C162	1-162-282-31	CERAMIC	100PF	10%	50V
C163	1-124-994-11	ELECT	100uF	20%	10V
C164	1-162-219-31	CERAMIC	68PF	5%	50V
C165	1-130-480-00	MYLAR	0.0056uF	5%	50V
C166	1-130-473-00	MYLAR	0.0015uF	5%	50V
C167	1-164-070-11	CERAMIC	100PF	5%	50V
C168	1-126-045-11	ELECT	2.2uF	20%	50V
C169	1-126-022-11	ELECT	47uF	20%	25V
C170	1-126-022-11	ELECT	47uF	20%	25V

Ref.No.	Part No.	Description
C171	1-126-163-11	ELECT 4.
C172	1-164-070-11	CERAMIC 10(
C173	1-164-027-11	CERAMIC 22I
C174	1-126-049-11	ELECT 22(
C175	1-126-044-11	ELECT 1uI
C201	1-126-044-11	ELECT 1uI
C202	1-126-969-11	ELECT 22(
C203	1-126-059-11	ELECT 10(
C204	1-126-051-11	ELECT 47(
C205	1-126-975-11	ELECT 47(
C206	1-126-975-11	ELECT 47(
C207	1-137-190-00	FILM 0.
C208	1-137-190-00	FILM 0.
C209-212		
	1-126-022-11	ELECT 47(
C213	1-126-027-11	ELECT 10(
C214	1-126-037-91	ELECT 22(
C215	1-136-157-00	FILM 0.
C216	1-136-157-00	FILM 0.
C217	1-126-059-11	ELECT 10(
C218	1-126-059-11	ELECT 10(
C219	1-126-941-11	ELECT 47(
C220	1-136-153-00	FILM 0.
C221	1-126-059-11	ELECT 10(
C222	1-164-159-11	CERAMIC 0.
C223	1-164-159-11	CERAMIC 0.
C224	1-126-059-11	ELECT 10(
C225	1-126-022-11	ELECT 47(
C226	1-126-022-11	ELECT 47(
C227	1-164-159-11	CERAMIC 0.
C228	1-164-159-11	CERAMIC 0.
C301	1-162-306-11	CERAMIC 0.
C302	1-126-059-11	ELECT 10(
C303	1-162-306-11	CERAMIC 0.
C304	1-126-059-11	ELECT 10(
C305	1-162-306-11	CERAMIC 0.
C306	1-126-022-11	ELECT 47(
C307	1-162-291-31	CERAMIC 56(
C308	1-162-288-31	CERAMIC 33(

SECTION 5
ELECTRICAL PARTS LIST

- Items marked " * "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : μ , for example :
  uA.... : μ A.... , uPA.... : μ PA....
  uPB.... : μ PB.... , uPC.... : μ PC....
  uPD.... : μ PD....
- CAPACITORS
  uF : μ F
- COILS
  uH : μ H

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board.

- Abbreviation
  G : German

Ref.No.	Part No.	Description			Remark
C171	1-126-163-11	ELECT	4.7uF	20%	50V
C172	1-164-070-11	CERAMIC	100PF	5%	50V
C173	1-164-027-11	CERAMIC	22PF	5%	50V
C174	1-126-049-11	ELECT	22uF	20%	50V
C175	1-126-044-11	ELECT	1uF	20%	50V
C201	1-126-044-11	ELECT	1uF	20%	50V
C202	1-126-969-11	ELECT	220uF	20%	50V
C203	1-126-059-11	ELECT	10uF	20%	50V
C204	1-126-051-11	ELECT	47uF	20%	50V
C205	1-126-975-11	ELECT	4700uF	20%	42V
C206	1-126-975-11	ELECT	4700uF	20%	42V
C207	1-137-190-00	FILM	0.22uF	5%	50V
C208	1-137-190-00	FILM	0.22uF	5%	50V
C209-212					
	1-126-022-11	ELECT	47uF	20%	25V
C213	1-126-027-11	ELECT	1000uF	20%	25V
C214	1-126-037-91	ELECT	220uF	20%	35V
C215	1-136-157-00	FILM	0.022uF	5%	50V
C216	1-136-157-00	FILM	0.022uF	5%	50V
C217	1-126-059-11	ELECT	10uF	20%	50V
C218	1-126-059-11	ELECT	10uF	20%	50V
C219	1-126-941-11	ELECT	470uF	20%	25V
C220	1-136-153-00	FILM	0.01uF	5%	50V
C221	1-126-059-11	ELECT	10uF	20%	50V
C222	1-164-159-11	CERAMIC	0.1uF		50V
C223	1-164-159-11	CERAMIC	0.1uF		50V
C224	1-126-059-11	ELECT	10uF	20%	50V
C225	1-126-022-11	ELECT	47uF	20%	25V
C226	1-126-022-11	ELECT	47uF	20%	25V
C227	1-164-159-11	CERAMIC	0.1uF		50V
C228	1-164-159-11	CERAMIC	0.1uF		50V
C301	1-162-306-11	CERAMIC	0.01uF	30%	16V
C302	1-126-059-11	ELECT	10uF	20%	50V
C303	1-162-306-11	CERAMIC	0.01uF	30%	16V
C304	1-126-059-11	ELECT	10uF	20%	50V
C305	1-162-306-11	CERAMIC	0.01uF	30%	16V
C306	1-126-022-11	ELECT	47uF	20%	25V
C307	1-162-291-31	CERAMIC	560PF	10%	50V
C308	1-162-288-31	CERAMIC	330PF	10%	50V
C309	1-126-				
C310	1-102-				
C311	1-101-				
C312	1-162-				
C313	1-126-				
C314	1-126-				
C315	1-162-				
C316	1-162-				
C501	1-126-				
C502	1-164-				
C503	1-164-				
C504	1-124-				
C505	1-164-				
C506	1-126-				
C507	1-164-				
C508	1-126-				
C509-512					
	1-136-				
C513	1-136-				
C514	1-161-				
C515	1-136-				
C516	1-162-				
C517	1-162-				
C551	1-126-				
C552	1-164-				
C553	1-164-				
C554	1-124-				
C555	1-164-				
C556	1-126-				
C557	1-164-				
C558	1-126-				
C559-562					
	1-136-				
C563	1-136-				
C564	1-164-				
C601	1-164-				
C602	1-124-				
C603	1-161-				
C604	1-124-				
* CN1	1-565-				
CN2	1-580-				
CN4	1-564-				
* CN101	1-564-				
* CN102	1-564-				
* CN201	1-565-				
* CN202	1-564-				
* CN203	1-568-				

Remark		
E (UK)		
E (G)		
E (AEP)		
*		
1uF		400V
PF	10%	50V
PF	10%	50V
uF	20%	50V
PF	10%	50V
uF	20%	10V
F	5%	50V
056uF	5%	50V
015uF	5%	50V
PF	5%	50V
uF	20%	50V
F	20%	25V
F	20%	25V
uF	20%	50V
PF	5%	50V
F	5%	50V
F	20%	50V
	20%	50V
PF	10%	50V
PF	10%	50V
uF	20%	50V
PF	10%	50V
uF	20%	10V
F	5%	50V
056uF	5%	50V
015uF	5%	50V
PF	5%	50V
uF	20%	50V
F	20%	25V
F	20%	25V

MAIN

Ref. No.	Part No.	Description			Remark
C309	1-126-059-11	ELECT	10uF	20%	50V
C310	1-102-527-11	CERAMIC	82PF	5%	50V
C311	1-101-880-00	CERAMIC	47PF	5%	50V
C312	1-162-306-11	CERAMIC	0.01uF	30%	16V
C313	1-126-059-11	ELECT	10uF	20%	50V
C314	1-126-045-11	ELECT	2.2uF	20%	50V
C315	1-162-306-11	CERAMIC	0.01uF	30%	16V
C316	1-162-291-31	CERAMIC	560PF	10%	50V
C501	1-126-045-11	ELECT	2.2uF	20%	50V
C502	1-164-070-11	CERAMIC	100PF	5%	50V
C503	1-164-070-11	CERAMIC	100PF	5%	50V
C504	1-124-994-11	ELECT	100uF	20%	10V
C505	1-164-019-11	CERAMIC	10PF	0.5PF	50V
C506	1-126-052-91	ELECT	100uF	20%	50V
C507	1-164-159-11	CERAMIC	0.1uF		50V
C508	1-126-059-11	ELECT	10uF	20%	50V
C509-512					
	1-136-165-00	FILM	0.1uF	5%	50V
C513	1-136-153-00	FILM	0.01uF	5%	50V
C514	1-161-494-00	CERAMIC	0.022uF		25V
C515	1-136-157-00	FILM	0.022uF	5%	50V
C516	1-162-282-31	CERAMIC	100PF	10%	50V
C517	1-162-282-31	CERAMIC	100PF	10%	50V
C551	1-126-045-11	ELECT	2.2uF	20%	50V
C552	1-164-070-11	CERAMIC	100PF	5%	50V
C553	1-164-070-11	CERAMIC	100PF	5%	50V
C554	1-124-994-11	ELECT	100uF	20%	10V
C555	1-164-019-11	CERAMIC	10PF	0.5PF	50V
C556	1-126-052-91	ELECT	100uF	20%	50V
C557	1-164-159-11	CERAMIC	0.1uF		50V
C558	1-126-059-11	ELECT	10uF	20%	50V
C559-562					
	1-136-165-00	FILM	0.1uF	5%	50V
C563	1-136-153-00	FILM	0.01uF	5%	50V
C564	1-164-159-11	CERAMIC	0.1uF		50V
C601	1-164-085-11	CERAMIC	0.001uF	10%	50V
C602	1-124-994-11	ELECT	100uF	20%	10V
C603	1-161-494-00	CERAMIC	0.022uF		25V
C604	1-124-994-11	ELECT	100uF	20%	10V

< CONNECTOR >

* CN1	1-565-792-11	PIN, CONNECTOR 2P
CN2	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P
CN4	1-564-321-00	PIN, CONNECTOR 2P
* CN101	1-564-509-11	PLUG, CONNECTOR 6P
* CN102	1-564-506-11	PLUG, CONNECTOR 3P
* CN201	1-565-561-11	PIN, CONNECTOR 3P (AU BUS)
* CN202	1-564-915-11	PIN, CONNECTOR 7P
* CN203	1-568-830-11	SOCKET, CONNECTOR 11P
* CN301	1-568-834-11	SOCKET, CONNECTOR 15P
* CN501	1-564-506-11	PLUG, CONNECTOR 3P
* CN502	1-564-508-11	PLUG, CONNECTOR 5P

< DIODE >

D101-106			
	8-719-987-63	DIODE	1N4148M
D201	8-719-987-63	DIODE	1N4148M
D202	8-719-987-63	DIODE	1N4148M
D203	8-719-200-02	DIODE	10E2
D204	8-719-934-22	DIODE	HZS30-2L
D205	8-719-014-56	DIODE	UZP-5.1B (UK)
D205	8-719-014-74	DIODE	UZP-6.2B (AEP, G)
D206	8-719-001-64	DIODE	UZL-12L2
D207	8-719-001-91	DIODE	UZL-15M
D208	8-719-001-91	DIODE	UZL-15M
D209	8-719-200-82	DIODE	11ES2
D210-216			
	8-719-200-82	DIODE	11ES2
D217	8-719-510-68	DIODE	D5SBA20F01
D218	8-719-987-63	DIODE	1N4148M
D219	8-719-200-82	DIODE	11ES2
D220	8-719-200-82	DIODE	11ES2
D221	8-719-933-33	DIODE	HZS6A1L
D222	8-719-933-33	DIODE	HZS6A1L
D601-603			
	8-719-987-63	DIODE	1N4148M
D651	8-719-987-63	DIODE	1N4148M
D652	8-719-987-63	DIODE	1N4148M

< FUSE >

⚠F1	1-532-078-00	FUSE, TIME-LAG (T1A 250V) (AEP, G)
⚠F1	1-532-215-00	FUSE, TIME-LAG (T0.8A 250V) (UK)
⚠F2	1-532-259-00	FUSE, TIME-LAG (T1.6A 250V)

< IC >

IC101	8-759-710-59	IC	NJM4580D-D
IC102	8-759-711-35	IC	NJM4580D
IC103-105			
	8-759-051-63	IC	TC9215P
IC203	8-759-231-53	IC	TA7805S
IC301	8-759-634-51	IC	M5218AP
IC302	8-759-169-99	IC	SAA6579
IC501	8-749-011-51	IC	STK401-250
IC601	8-759-111-68	IC	uPC1237HA

< JACK >

J101	1-565-352-11	JACK, PIN 2P (PHONO INPUT)
J102	1-770-765-11	JACK, PIN 4P (CD LINE IN, TAPE LINE OUT)

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

MAIN

Ref. No.	Part No.	Description	Remark
J103	1-565-320-61	JACK, PIN 6P (TAPE LINE IN, MD LINE OUT, MD LINE IN)	
		< COIL >	
* L501	1-420-872-00	COIL, AIR CORE	
* L551	1-420-872-00	COIL, AIR CORE	
		< TRANSISTOR >	
Q101	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q151	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q201	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q202	8-729-209-15	TRANSISTOR 2SD2012	
Q203	8-729-140-97	TRANSISTOR 2SB734-34	
Q204	8-729-140-96	TRANSISTOR 2SD774-34	
Q205	8-729-140-97	TRANSISTOR 2SB734-34	
Q206	8-729-202-67	TRANSISTOR 2SK246-GR3	
Q301	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q302	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q601	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q651	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
		< RESISTOR >	
R101	1-259-428-11	CARBON 1K 5% 1/6W	
R104	1-259-428-11	CARBON 1K 5% 1/6W	
R105	1-259-500-11	CARBON 1M 5% 1/6W	
R106	1-259-420-11	CARBON 470 5% 1/6W	
R107	1-259-428-11	CARBON 1K 5% 1/6W	
R108	1-259-500-11	CARBON 1M 5% 1/6W	
R109	1-259-420-11	CARBON 470 5% 1/6W	
R110	1-259-428-11	CARBON 1K 5% 1/6W	
R111	1-259-500-11	CARBON 1M 5% 1/6W	
R118	1-259-476-11	CARBON 100K 5% 1/6W	
R119	1-259-428-11	CARBON 1K 5% 1/6W	
R120	1-259-476-11	CARBON 100K 5% 1/6W	
R121	1-259-428-11	CARBON 1K 5% 1/6W	
R122	1-259-494-11	CARBON 560K 5% 1/6W	
R124	1-259-468-11	CARBON 47K 5% 1/6W	
R126	1-259-412-11	CARBON 220 5% 1/6W	
R127	1-259-476-11	CARBON 100K 5% 1/6W	
R128	1-259-500-11	CARBON 1M 5% 1/6W	
R129	1-259-476-11	CARBON 100K 5% 1/6W	
R130	1-259-428-11	CARBON 1K 5% 1/6W	
R131	1-259-428-11	CARBON 1K 5% 1/6W	
R132	1-259-442-11	CARBON 3.9K 5% 1/6W	
R133	1-259-428-11	CARBON 1K 5% 1/6W	
R134	1-259-452-11	CARBON 10K 5% 1/6W	
R136	1-259-476-11	CARBON 100K 5% 1/6W	
R137	1-259-452-11	CARBON 10K 5% 1/6W	

Ref. No.	Part No.	Description	Remark
R138	1-259-452-11	CARBON 10K 5% 1/6W	
R139	1-259-452-11	CARBON 10K 5% 1/6W	
R151	1-259-428-11	CARBON 1K 5% 1/6W	
R154	1-259-428-11	CARBON 1K 5% 1/6W	
R155	1-259-500-11	CARBON 1M 5% 1/6W	
R156	1-259-420-11	CARBON 470 5% 1/6W	
R157	1-259-428-11	CARBON 1K 5% 1/6W	
R158	1-259-500-11	CARBON 1M 5% 1/6W	
R159	1-259-420-11	CARBON 470 5% 1/6W	
R160	1-259-428-11	CARBON 1K 5% 1/6W	
R161	1-259-500-11	CARBON 1M 5% 1/6W	
R168	1-259-476-11	CARBON 100K 5% 1/6W	
R169	1-259-428-11	CARBON 1K 5% 1/6W	
R170	1-259-476-11	CARBON 100K 5% 1/6W	
R171	1-259-428-11	CARBON 1K 5% 1/6W	
R172	1-259-494-11	CARBON 560K 5% 1/6W	
R174	1-259-468-11	CARBON 47K 5% 1/6W	
R176	1-259-412-11	CARBON 220 5% 1/6W	
R177	1-259-476-11	CARBON 100K 5% 1/6W	
R178	1-259-500-11	CARBON 1M 5% 1/6W	
R179	1-259-476-11	CARBON 100K 5% 1/6W	
R180	1-259-428-11	CARBON 1K 5% 1/6W	
R181	1-259-428-11	CARBON 1K 5% 1/6W	
R182	1-259-442-11	CARBON 3.9K 5% 1/6W	
R183	1-259-428-11	CARBON 1K 5% 1/6W	
R184	1-259-452-11	CARBON 10K 5% 1/6W	
R201	1-259-436-11	CARBON 2.2K 5% 1/6W	
R202	1-259-452-11	CARBON 10K 5% 1/6W	
R203	1-259-452-11	CARBON 10K 5% 1/6W	
⚠R204	1-219-136-11	FUSIBLE 0.22 10% 1/4W	F
⚠R205	1-219-136-11	FUSIBLE 0.22 10% 1/4W	F
⚠R206	1-212-873-11	FUSIBLE 47 5% 1/4W	F
R207	1-259-440-11	CARBON 3.3K 5% 1/6W	
R208	1-259-440-11	CARBON 3.3K 5% 1/6W	
R209	1-259-436-11	CARBON 2.2K 5% 1/6W	
R210	1-249-689-11	CARBON 4.7K 5% 1/2W	
⚠R211	1-212-934-00	FUSIBLE 1 5% 1/2W	F
R301	1-259-440-11	CARBON 3.3K 5% 1/6W	
R302	1-259-452-11	CARBON 10K 5% 1/6W	
R303	1-249-401-11	CARBON 47 5% 1/4W	
R305	1-259-428-11	CARBON 1K 5% 1/6W	
R306	1-259-428-11	CARBON 1K 5% 1/6W	
R307	1-249-401-11	CARBON 47 5% 1/4W	
R308	1-259-476-11	CARBON 100K 5% 1/6W	
R309	1-259-476-11	CARBON 100K 5% 1/6W	
R310	1-259-460-11	CARBON 22K 5% 1/6W	
R311	1-259-446-11	CARBON 5.6K 5% 1/6W	
R312	1-249-405-11	CARBON 100 5% 1/4W	
R313	1-259-436-11	CARBON 2.2K 5% 1/6W	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description				Remark
R314	1-259-476-11	CARBON	100K	5%	1/6W	
R501	1-259-428-11	CARBON	1K	5%	1/6W	
R502	1-259-472-11	CARBON	68K	5%	1/6W	
R503	1-259-420-11	CARBON	470	5%	1/6W	
R504	1-259-472-11	CARBON	68K	5%	1/6W	
⚠R505	1-212-881-11	FUSIBLE	100	5%	1/4W	F
R507	1-247-727-11	CARBON	10	5%	1/2W	
R508	1-247-727-11	CARBON	10	5%	1/2W	
R510	1-247-727-11	CARBON	10	5%	1/2W	
R551	1-259-428-11	CARBON	1K	5%	1/6W	
R552	1-259-472-11	CARBON	68K	5%	1/6W	
R553	1-259-420-11	CARBON	470	5%	1/6W	
R554	1-259-472-11	CARBON	68K	5%	1/6W	
⚠R555	1-212-881-11	FUSIBLE	100	5%	1/4W	F
R557	1-247-727-11	CARBON	10	5%	1/2W	
R558	1-247-727-11	CARBON	10	5%	1/2W	
R560	1-247-727-11	CARBON	10	5%	1/2W	
R601	1-259-428-11	CARBON	1K	5%	1/6W	
R602	1-259-456-11	CARBON	15K	5%	1/6W	
R603	1-259-484-11	CARBON	220K	5%	1/6W	
⚠R604	1-217-611-00	RES, METAL PLATE	0.1			F
⚠R605	1-215-914-11	METAL OXIDE	330	5%	3W F	(AEP, G)
⚠R605	1-215-913-11	METAL OXIDE	220	5%	3W F	(UK)
R606	1-259-452-11	CARBON	10K	5%	1/6W	
R607	1-259-484-11	CARBON	220K	5%	1/6W	
R608	1-259-468-11	CARBON	47K	5%	1/6W	
R609	1-259-444-11	CARBON	4.7K	5%	1/6W	
R610	1-259-444-11	CARBON	4.7K	5%	1/6W	
R651	1-259-428-11	CARBON	1K	5%	1/6W	
R652	1-259-456-11	CARBON	15K	5%	1/6W	
R653	1-259-484-11	CARBON	220K	5%	1/6W	
⚠R654	1-217-611-00	RES, METAL PLATE	0.1			F

< RELAY >

⚠RY201	1-515-849-11	RELAY	
RY601	1-515-920-11	RELAY (24V)	

< TRANSFORMER >

⚠T1	1-449-071-21	TRANSFORMER, POWER

< TUNER UNIT >

TB301	1-693-287-11	TUNER UNIT (G)
TB301	1-233-375-11	TUNER UNIT (AEP, UK)

< TERMINAL >

TB1	1-535-139-00	BASE POST 22MM (10MM PITCH) 2P
TM301	1-537-714-11	TERMINAL BOARD (ANTENNA)
TM501	1-537-494-11	TERMINAL BOARD (SPEAKERS)

Ref. No.	Part No.	Description				Remark

< VIBRATOR >

X301	1-579-900-21	VIBRATOR, CRYSTAL (4.332MHz)				

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* A-4378-532-A PANEL BOARD, COMPLETE (AEP, UK)
* A-4378-537-A PANEL BOARD, COMPLETE (G)

****

< CAPACITOR >

C701	1-126-154-11	ELECT	47uF	20%	6.3V
C702	1-162-306-11	CERAMIC	0.01uF	30%	16V
C703	1-125-486-11	DOUBLE LAYERS	0.22F		5.5V
C704	1-162-306-11	CERAMIC	0.01uF	30%	16V
C705	1-161-494-00	CERAMIC	0.022uF		25V
C706	1-164-159-11	CERAMIC	0.1uF		50V
C707	1-164-159-11	CERAMIC	0.1uF		50V
C709	1-162-306-11	CERAMIC	0.01uF	30%	16V
C710	1-126-177-11	ELECT	100uF	20%	10V
C711	1-126-157-11	ELECT	10uF	20%	16V
C712	1-126-301-11	ELECT	1uF	20%	50V
C713	1-126-301-11	ELECT	1uF	20%	50V

< CONNECTOR >

* CN701	1-568-834-11	SOCKET, CONNECTOR 15P
* CN702	1-564-508-11	PLUG, CONNECTOR 5P
* CN703	1-568-830-11	SOCKET, CONNECTOR 11P

< DIODE >

D701-703		
	8-719-987-63	DIODE 1N4148M
D704	8-719-313-43	LED SEL6210S-TH10 (SOURCE DIRECT)
D705-707		
	8-719-987-63	DIODE 1N4148M

< INDICATOR TUBE >

FL701	1-517-141-11	INDICATOR TUBE, FLUORESCENT

< IC >

IC701	8-759-346-89	IC uPD78044AGF-109-3B9
IC702	8-759-256-72	IC PST994D
IC703	8-749-920-83	IC GP1U52XB

< COIL >

L701	1-410-521-11	INDUCTOR 100uH

< TRANSISTOR >

Q701	8-729-900-36	TRANSISTOR DTC124ES
Q702	8-729-900-63	TRANSISTOR DTA124ES

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

PANEL PHONES POWER SW

Ref. No.	Part No.	Description				Remark
Q703	8-729-900-63	TRANSISTOR	DTA124ES			
Q704	8-729-900-61	TRANSISTOR	DTA114ES			
Q705	8-729-620-05	TRANSISTOR	2SC2603-EF			
		< RESISTOR >				
R701	1-249-429-11	CARBON	10K	5%	1/4W	
R702-707						
	1-249-411-11	CARBON	330	5%	1/4W	
R708	1-249-433-11	CARBON	22K	5%	1/4W	
R709	1-249-433-11	CARBON	22K	5%	1/4W	
R710-712						
	1-249-411-11	CARBON	330	5%	1/4W	
R713	1-249-433-11	CARBON	22K	5%	1/4W	
R714	1-249-417-11	CARBON	1K	5%	1/4W	
R715	1-249-411-11	CARBON	330	5%	1/4W	
R716	1-249-413-11	CARBON	470	5%	1/4W	
R717	1-249-425-11	CARBON	4.7K	5%	1/4W	
R720	1-249-435-11	CARBON	33K	5%	1/4W	
R721	1-249-431-11	CARBON	15K	5%	1/4W	
R722	1-249-427-11	CARBON	6.8K	5%	1/4W	
R723	1-249-423-11	CARBON	3.3K	5%	1/4W	
R724	1-249-421-11	CARBON	2.2K	5%	1/4W	
R725	1-249-419-11	CARBON	1.5K	5%	1/4W	
R726	1-249-417-11	CARBON	1K	5%	1/4W	
R727	1-249-415-11	CARBON	680	5%	1/4W	
R728	1-249-413-11	CARBON	470	5%	1/4W	
R729	1-249-411-11	CARBON	330	5%	1/4W	
R730	1-249-409-11	CARBON	220	5%	1/4W	
R731	1-249-441-11	CARBON	100K	5%	1/4W	
R732	1-249-411-11	CARBON	330	5%	1/4W	
R733	1-249-411-11	CARBON	330	5%	1/4W	
R734	1-249-413-11	CARBON	470	5%	1/4W	
R735	1-249-413-11	CARBON	470	5%	1/4W	
R736	1-249-409-11	CARBON	220	5%	1/4W	
R737	1-249-429-11	CARBON	10K	5%	1/4W	
R738	1-249-423-11	CARBON	3.3K	5%	1/4W	
R739	1-249-425-11	CARBON	4.7K	5%	1/4W	
R740	1-249-411-11	CARBON	330	5%	1/4W	
R741	1-249-411-11	CARBON	330	5%	1/4W	
R742	1-249-429-11	CARBON	10K	5%	1/4W	
R743	1-249-429-11	CARBON	10K	5%	1/4W	
R744	1-249-393-11	CARBON	10	5%	1/4W	
R746	1-249-441-11	CARBON	100K	5%	1/4W	
R748	1-249-441-11	CARBON	100K	5%	1/4W	
R749	1-249-441-11	CARBON	100K	5%	1/4W	(AEP, UK)
R750	1-249-441-11	CARBON	100K	5%	1/4W	(G)
R751-759						
	1-249-441-11	CARBON	100K	5%	1/4W	

Ref. No.	Part No.	Description				Remark
		< SWITCH >				
S701	1-554-303-21	SWITCH, TACTILE (EON)				
S702	1-554-303-21	SWITCH, TACTILE (PTY)				
S703	1-554-303-21	SWITCH, TACTILE (DISPLAY)				
S704	1-554-303-21	SWITCH, TACTILE (CHARACTER)				
S705	1-554-303-21	SWITCH, TACTILE (STEREO/MONO)				
S706	1-554-303-21	SWITCH, TACTILE (TUNING MODE)				
S707	1-554-303-21	SWITCH, TACTILE (MEMORY/ENTER)				
S708	1-554-303-21	SWITCH, TACTILE (TUNING/SELECT -)				
S709	1-554-303-21	SWITCH, TACTILE (TUNING/SELECT +)				
S710	1-554-303-21	SWITCH, TACTILE (BAND)				
S711	1-554-303-21	SWITCH, TACTILE (FUNCTION)				
S712	1-554-303-21	SWITCH, TACTILE (SOURCE DIRECT)				
		< VIBRATOR >				
X701	1-579-233-11	VIBRATOR, CERAMIC (5MHz)				
**********						
*	1-656-548-11	PHONES BOARD				
		**********				
		< CONNECTOR >				
* CN503	1-564-508-11	PLUG, CONNECTOR 5P				
		< JACK >				
J501	1-507-854-21	JACK, LARGE TYPE (PHONES)				
		< RESISTOR >				
R509	1-249-661-11	CARBON	330	5%	1/2W	
R559	1-249-661-11	CARBON	330	5%	1/2W	
**********						
*	1-656-547-11	POWER SW BOARD				
		**********				
		< CAPACITOR >				
C708	1-162-306-11	CERAMIC	0.01uF	30%	16V	
		< DIODE >				
D708	8-719-313-40	LED	SML1516W (ON/STANDBY)			
		< SWITCH >				
S713	1-554-118-00	SWITCH, PUSH (1 KEY) (POWER)				
**********						

TONE VOLUME

Ref. No.	Part No.	Description			Remark
*	1-656-546-11	TONE BOARD			
		**********			
		< CAPACITOR >			
C401	1-162-286-31	CERAMIC	220PF	10%	50V
C402	1-136-167-00	FILM	0.15uF	5%	50V
C403	1-137-195-11	FILM	0.56uF	5%	50V
C404	1-136-156-00	FILM	0.018uF	5%	50V
C405	1-136-495-11	FILM	0.068uF	5%	50V
C451	1-162-286-31	CERAMIC	220PF	10%	50V
C452	1-136-167-00	FILM	0.15uF	5%	50V
C453	1-137-195-11	FILM	0.56uF	5%	50V
C454	1-136-156-00	FILM	0.018uF	5%	50V
C455	1-136-495-11	FILM	0.068uF	5%	50V
		< CONNECTOR >			
* CN401	1-564-521-11	PLUG, CONNECTOR 6P			
		< RESISTOR >			
R401	1-259-420-11	CARBON	470	5%	1/6W
R402	1-259-440-11	CARBON	3.3K	5%	1/6W
R403	1-259-428-11	CARBON	1K	5%	1/6W
R404	1-259-464-11	CARBON	33K	5%	1/6W
R405	1-259-424-11	CARBON	680	5%	1/6W
R451	1-259-420-11	CARBON	470	5%	1/6W
R452	1-259-440-11	CARBON	3.3K	5%	1/6W
R453	1-259-428-11	CARBON	1K	5%	1/6W
R454	1-259-464-11	CARBON	33K	5%	1/6W
R455	1-259-424-11	CARBON	680	5%	1/6W
		< VARIABLE RESISTOR >			
RV401	1-223-919-11	RES, VAR, CARBON 10K/10K	(BASS)		
RV402	1-223-919-11	RES, VAR, CARBON 10K/10K	(TREBLE)		
RV403	1-223-920-11	RES, VAR, CARBON 100K/100K	(BALANCE)		
**********					
*	1-656-543-11	VOLUME BOARD			
		**********			
		< CAPACITOR >			
C406	1-164-159-11	CERAMIC	0.1uF		50V
C407	1-124-994-11	ELECT	100uF	20%	10V
		< CONNECTOR >			
* CN402	1-564-506-11	PLUG, CONNECTOR 3P			
CN403	1-564-506-11	PLUG, CONNECTOR 3P			
* CN404	1-564-508-11	PLUG, CONNECTOR 5P			

Ref. No.	Part No.	Description			Remark
		< DIODE >			
D401	8-719-200-82	DIODE 11ES2			
		< IC >			
IC401	8-759-962-08	IC BA6208			
		< RESISTOR >			
R410	1-249-389-11	CARBON	4.7	5%	1/4W
		< VARIABLE RESISTOR >			
RV404	1-241-921-11	RES, VAR, CARBON 120K/120K (ATTENUATOR)			
**********					
		MISCELLANEOUS			
		**********			
19	1-773-028-11	WIRE (FLAT TYPE) (15 CORE)			
21	1-765-325-11	WIRE (FLAT TYPE) (11 CORE)			
54	1-537-770-21	TERMINAL BOARD, GROUND			
55	1-533-293-11	FUSE HOLDER			
⚠CNJ1	1-526-794-11	OUTLET, AC (AC OUTLET)			
⚠CNP1	1-575-651-21	CORD, POWER (AEP, G)			
⚠CNP1	1-696-571-11	CORD, POWER (UK)			
⚠T2	1-427-974-11	TRANSFORMER, POWER (AEP, G)			
⚠T2	1-427-975-11	TRANSFORMER, POWER (UK)			
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		ACCESSORIES & PACKING MATERIALS			
		**********			
	1-467-796-11	REMOTE COMMANDER (RM-S1)			
	1-501-594-31	ANTENNA (FM)			
	1-501-721-11	ANTENNA (LOOP)			
	1-775-411-11	CORD (WITH CONNECTOR)			
	3-363-099-21	SCREW (CASE 3 TP2)			
	3-800-465-11	MANUAL, INSTRUCTION (ENGLISH/FRENCH/ SPANISH/PORTUGUESE) (AEP)			
	3-800-465-41	MANUAL, INSTRUCTION (GERMAN/DUTCH/ SWEDISH/ITALIAN) (AEP, G)			
	3-800-465-51	MANUAL, INSTRUCTION (ENGLISH) (UK)			
	4-955-381-01	CASE, BATTERY (FOR RM-S1)			
*	4-968-991-01	CUSHION			
	4-976-722-01	PLATE (PIN JACK 10P), INDICATION			
*	4-977-250-01	INDIVIDUAL CARTON (AEP, G)			
*	4-977-251-01	INDIVIDUAL CARTON (UK)			
	X-4945-464-1	SCREW ASSY (4)			
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The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.